



FIG. 1A

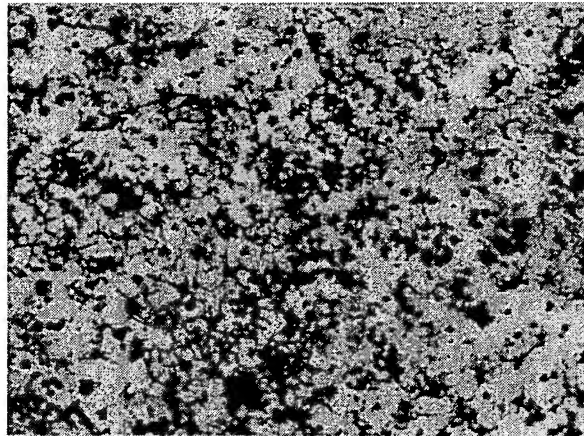


FIG. 1B

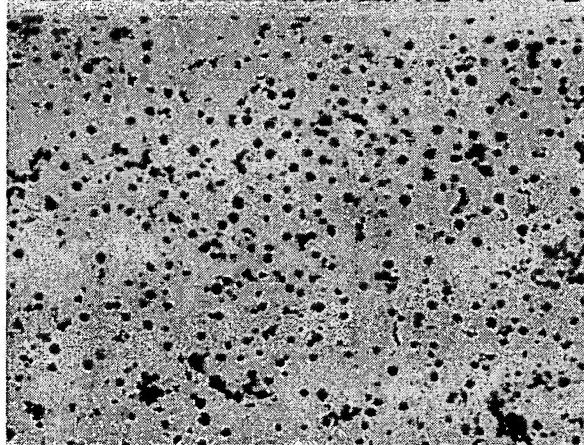


FIG. 2A

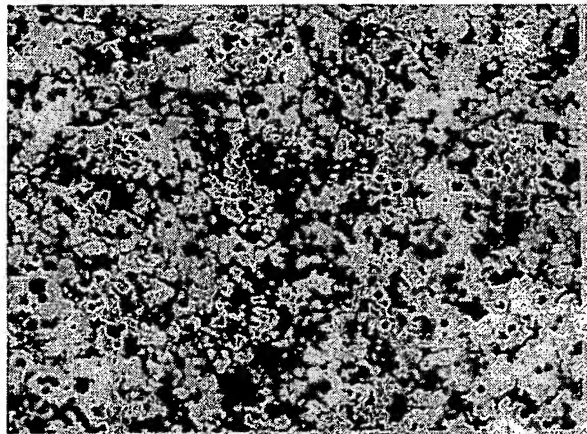


FIG. 2B

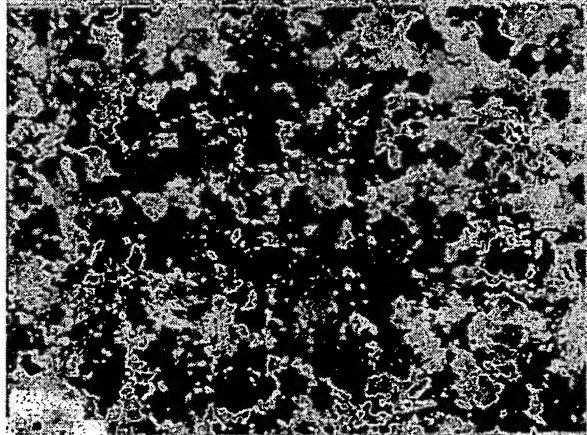




FIG. 3A

FIG. 3B

FIG. 3C

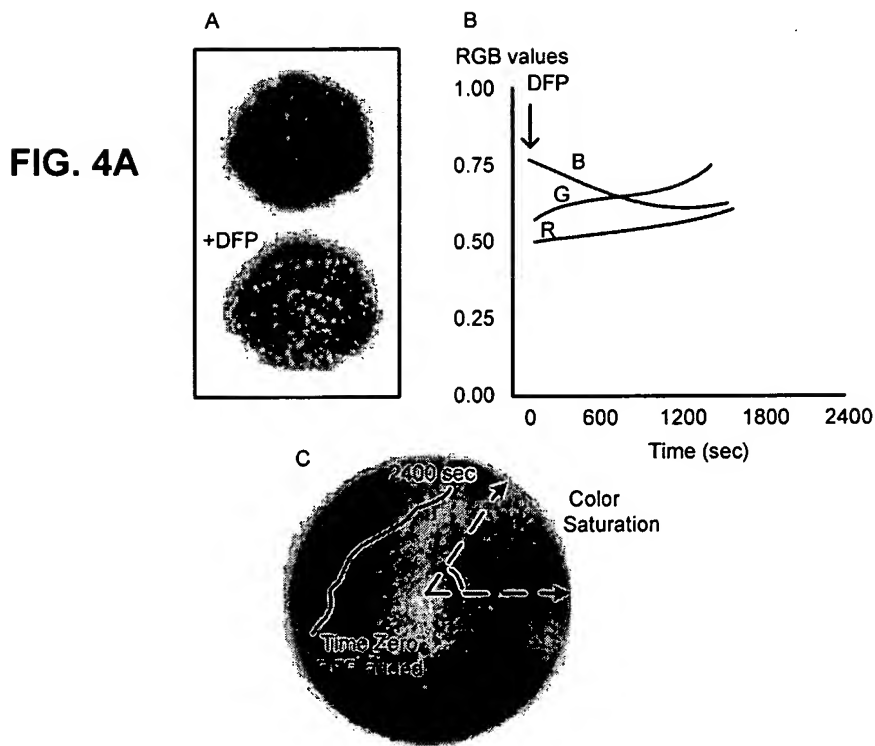


FIG. 4C

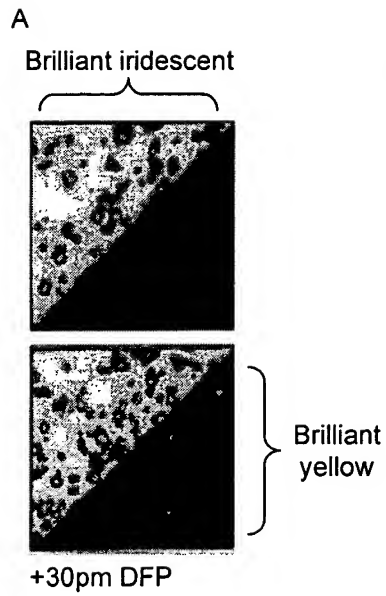


FIG. 5A

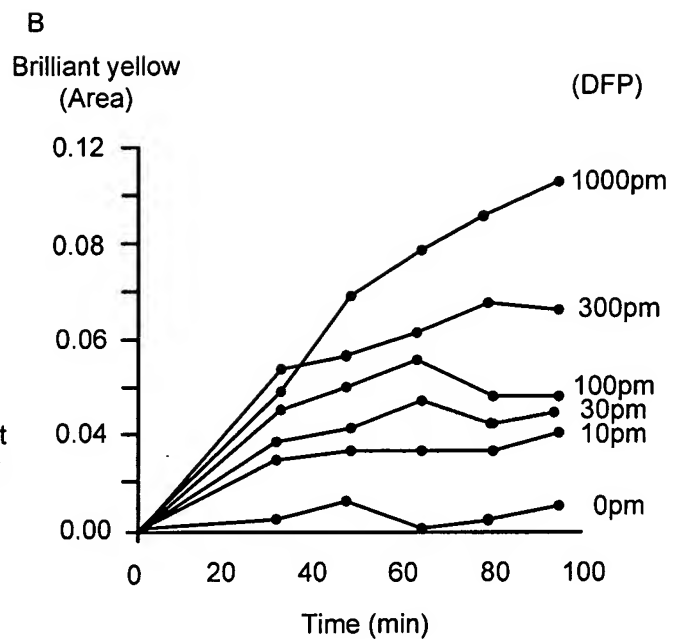


FIG. 5B

FIG. 6A

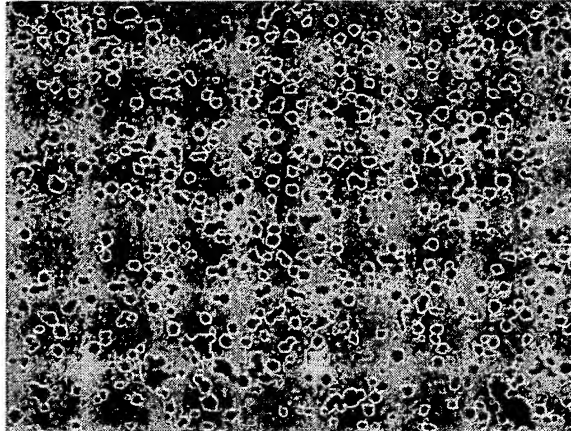


FIG. 6B

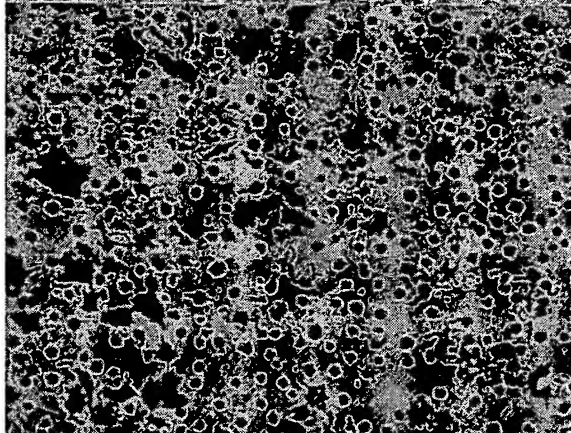
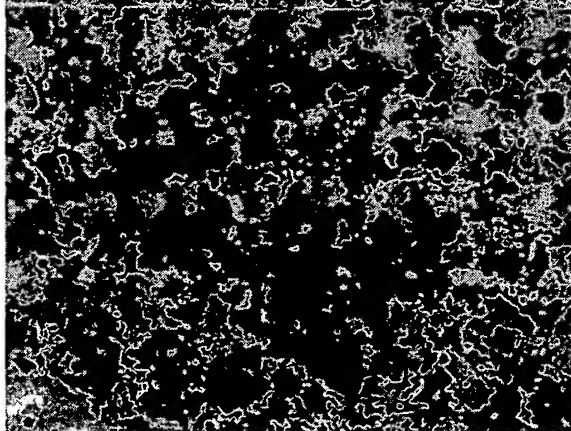


FIG. 6C



Strain 1

FIG. 7A

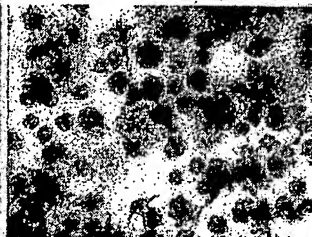
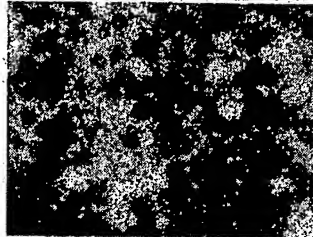


FIG. 7B

Strain 2

FIG. 8A

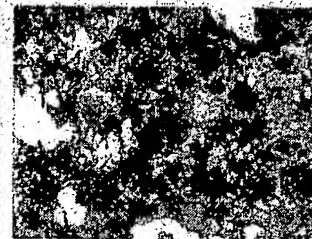
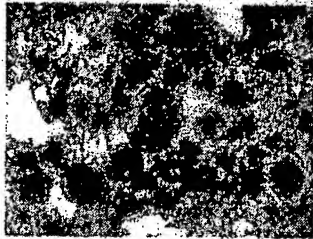


FIG. 8B

Strain 3

FIG. 9A

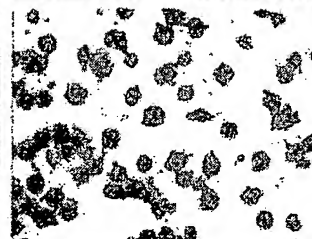


FIG. 9B

Strain 4

FIG. 10A

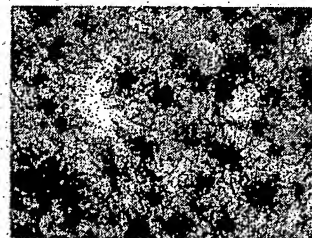
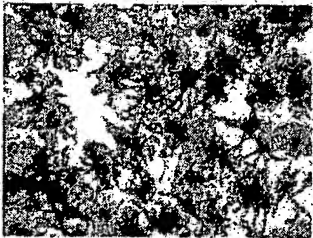


FIG. 10B

Strain 5

FIG. 11A

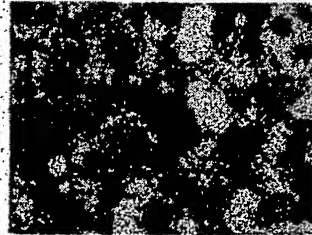
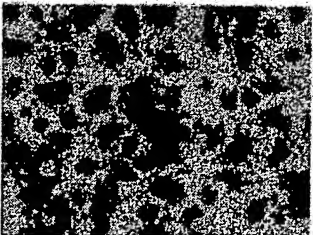


FIG. 11B

FIG. 12A

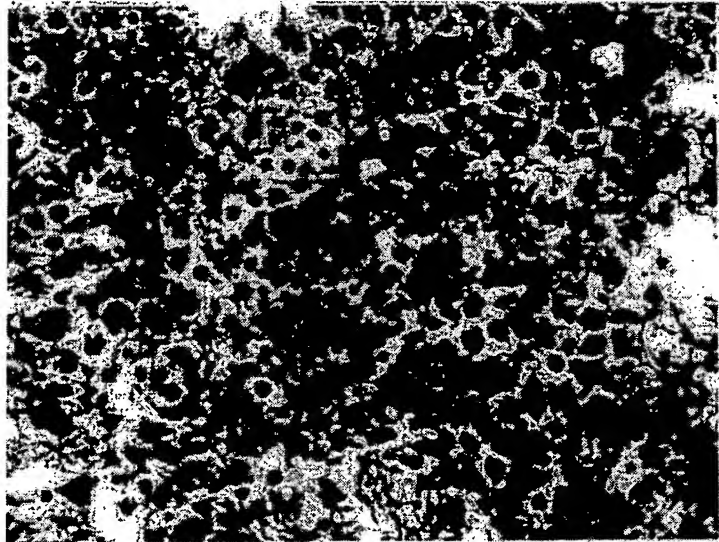


FIG. 12B

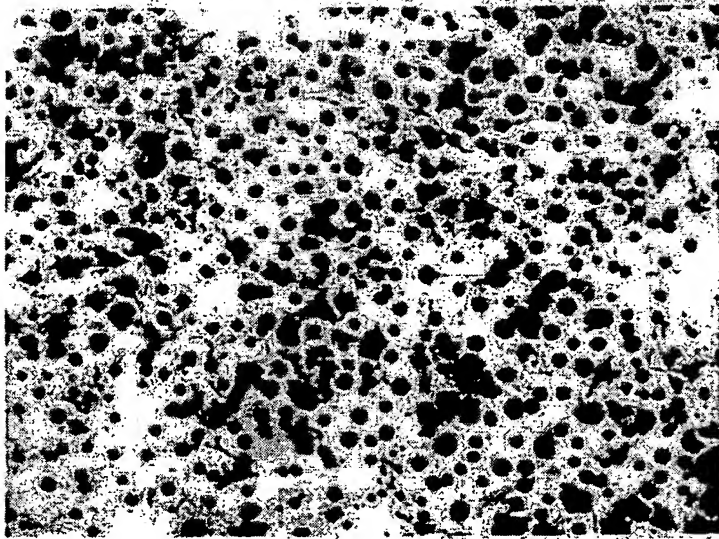


FIG. 13



















	Agent	Chemical Type	Effective Dose	Direct Effects	Challenge A (norepinephrine)	Challenge B (forskolin)
Control	None	-	-			
I	DFP Mipafox Paroxon	phosphorofluoridate phosphorfluorodiamidate phosphate	ppm			
II	PMSE EPN	sulfonylfluoride phosphonothinate	ppm			
III	Mevinphos Dichlorvos	phosphate phosphate	ppt			
IV	Trichlorfon	phosphate	ppt			
V	Chlorpyrifos Fenitrothion Merphos Carbaryl Methomyl 2,5 Hexanedioac Acrylamide	phosphorothinate phosphorothinate phosphorotrithinate carbanilate carbanilate diketone amide	ND			

FIG. 14A



FIG. 14B

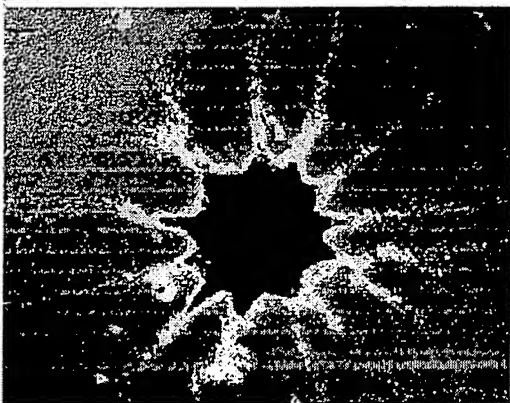
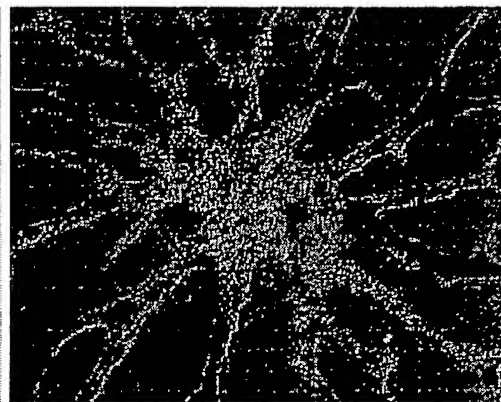


FIG. 14C

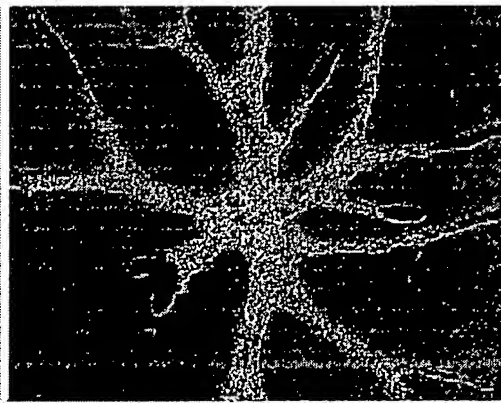


FIG. 14D

FIG. 15A

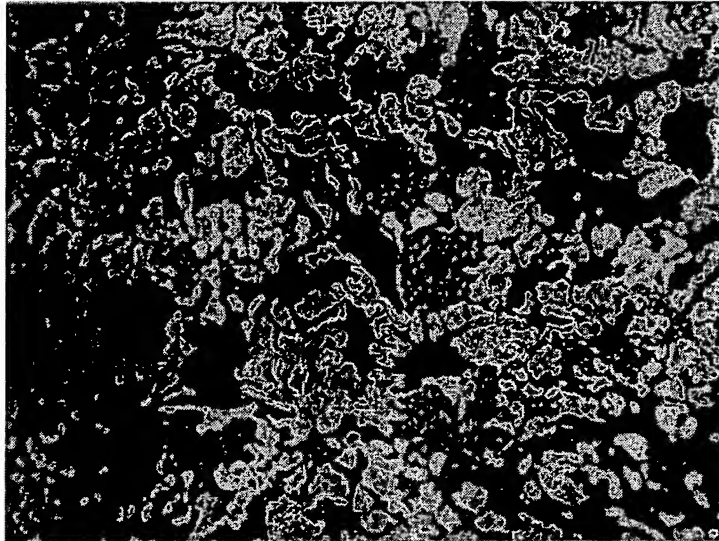
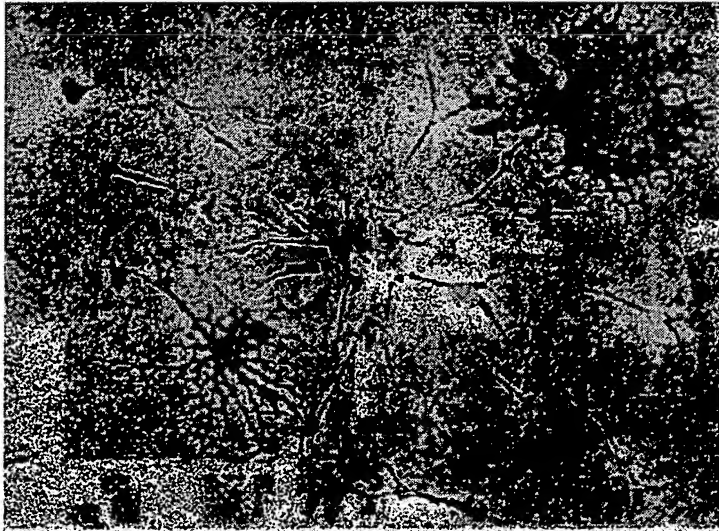


FIG. 15B



100 Microns

FIG. 16C



FIG. 16B

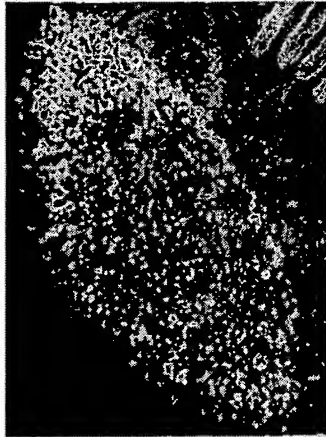


FIG. 16A

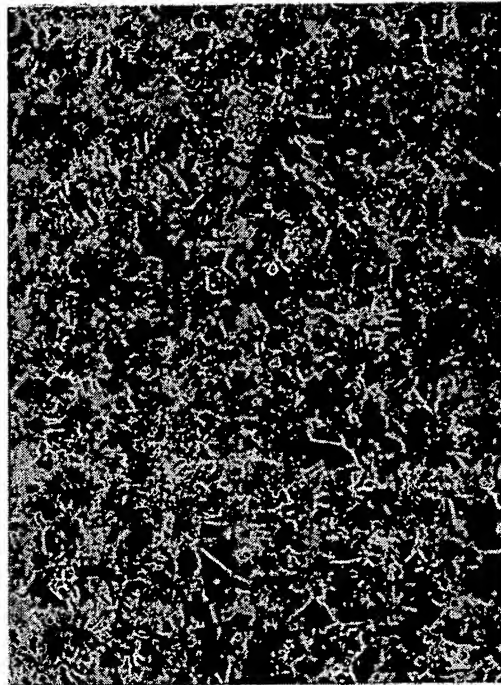
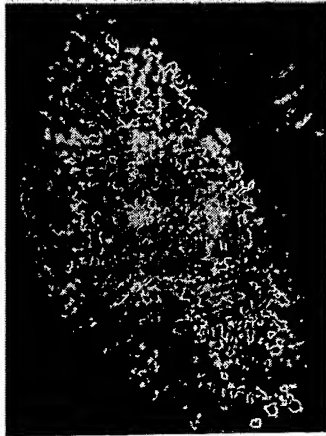
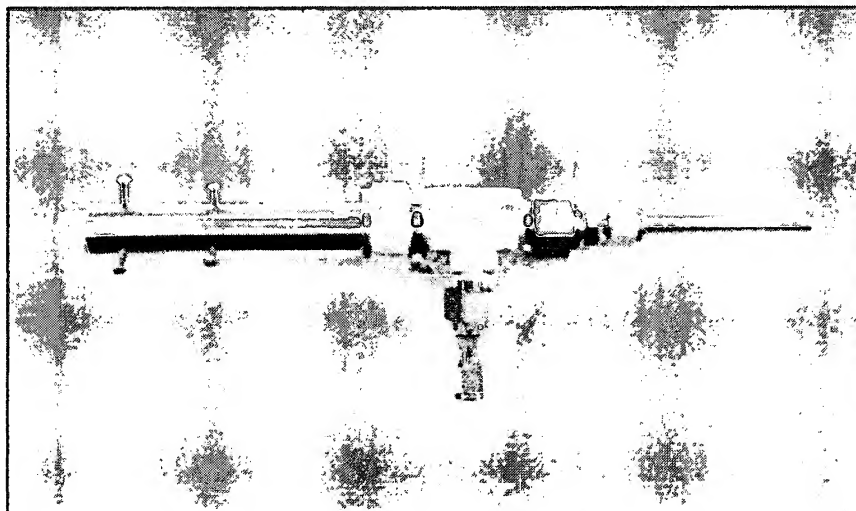


FIG. 17

Hardware construction for the encapsulation of SOS sensor cells.

FIG. 18A



Extruder
hardware
(assembled)

FIG. 18B

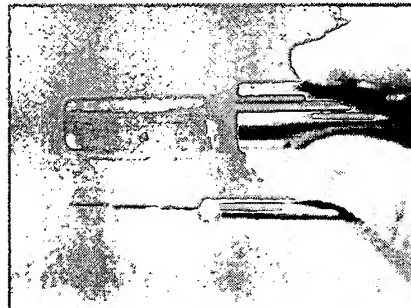
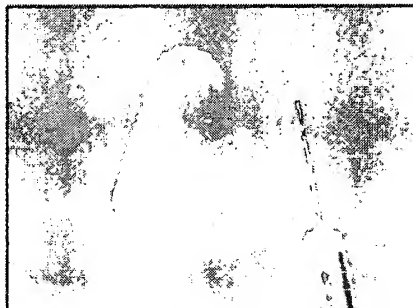


FIG. 18C

Air-flow
adjustment
mechanism

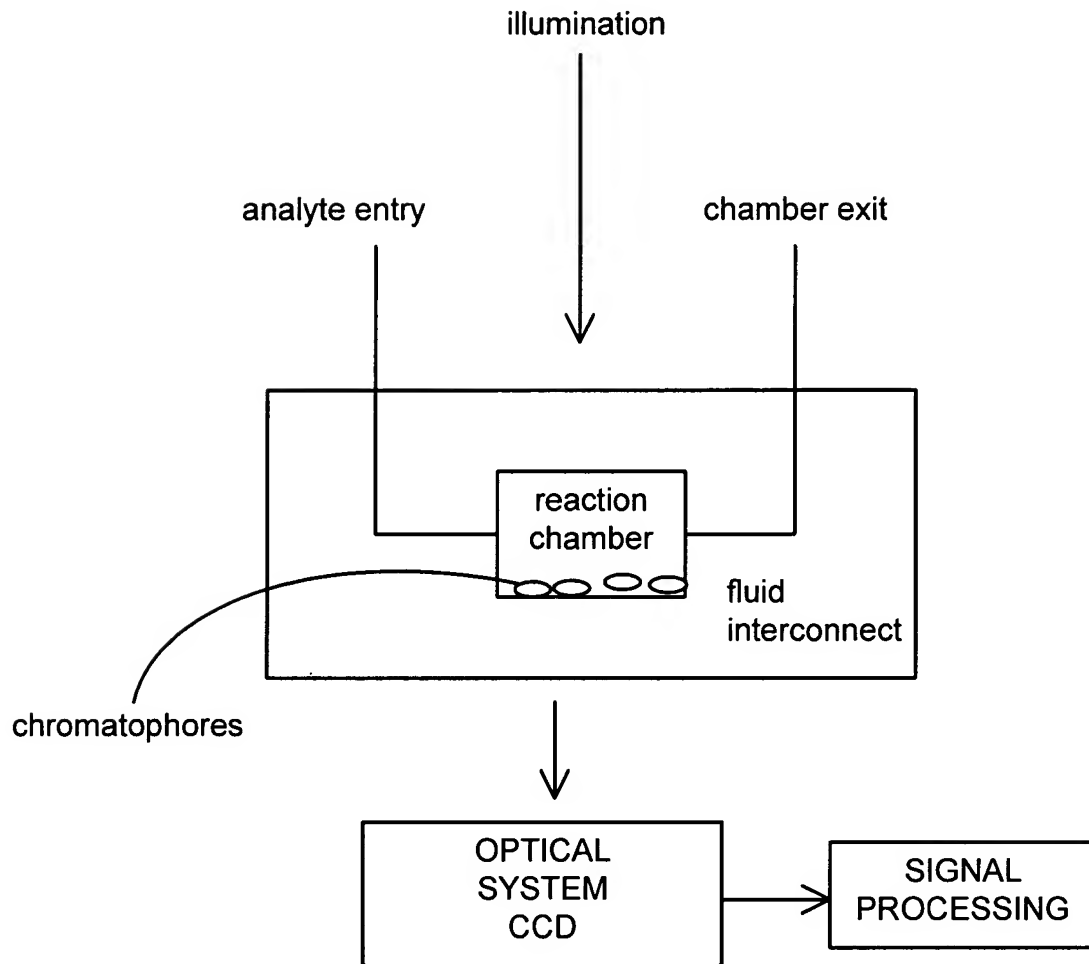


FIG. 19

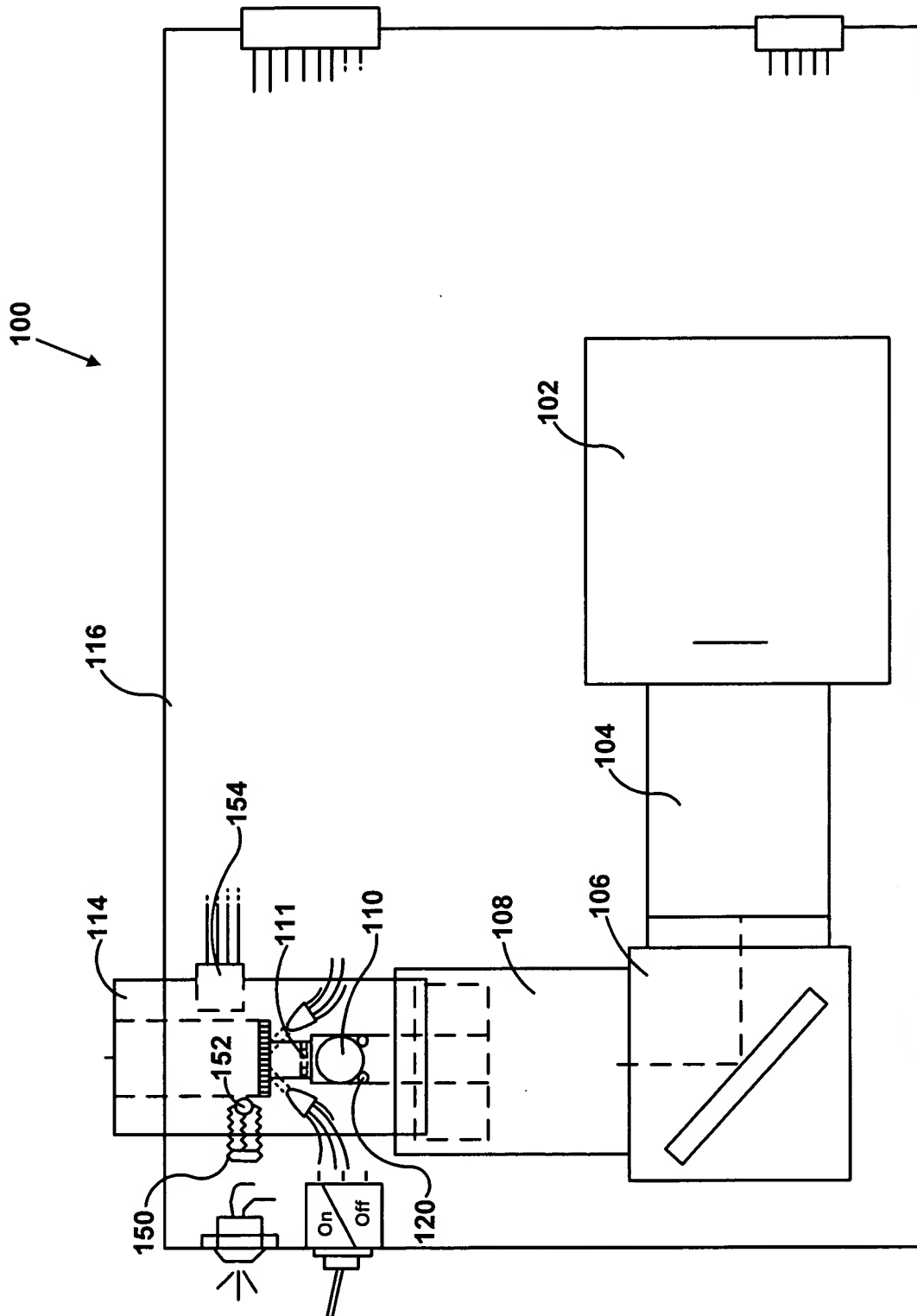


FIG. 20

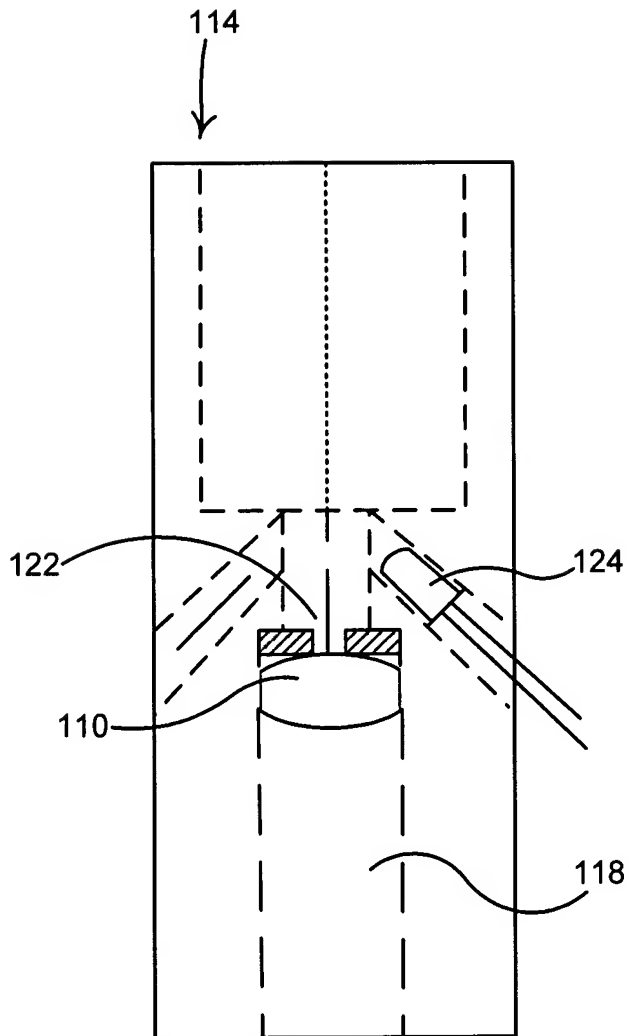


FIG. 21

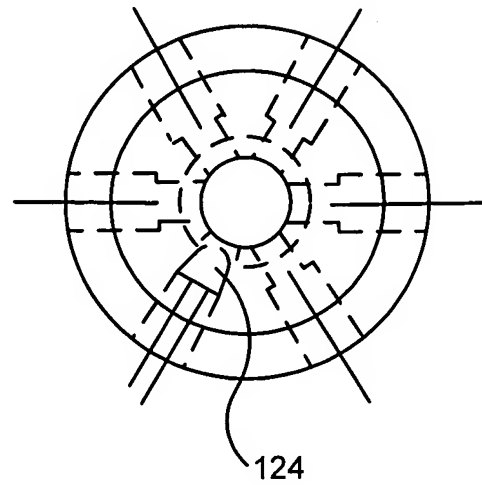
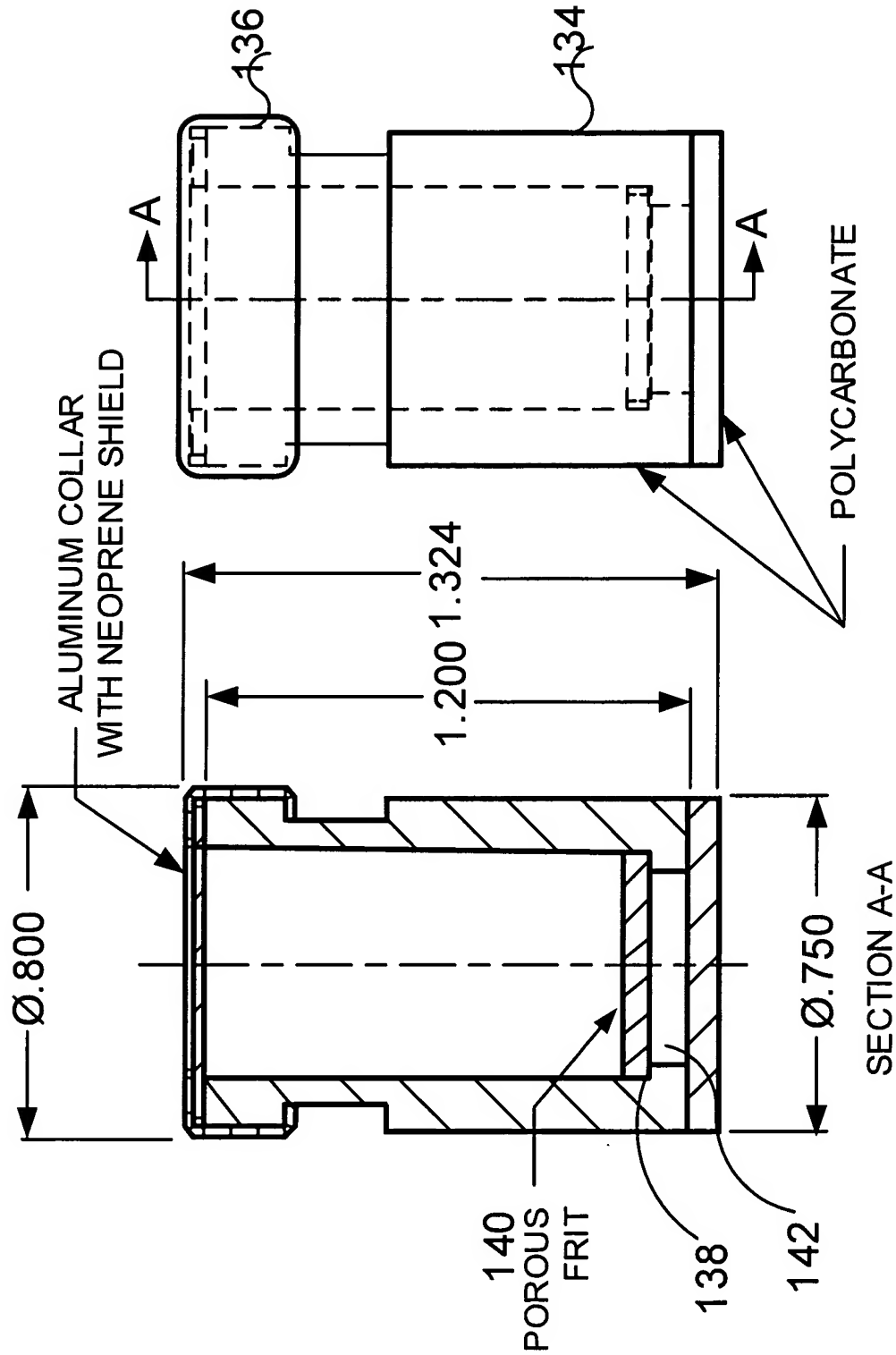


FIG. 22



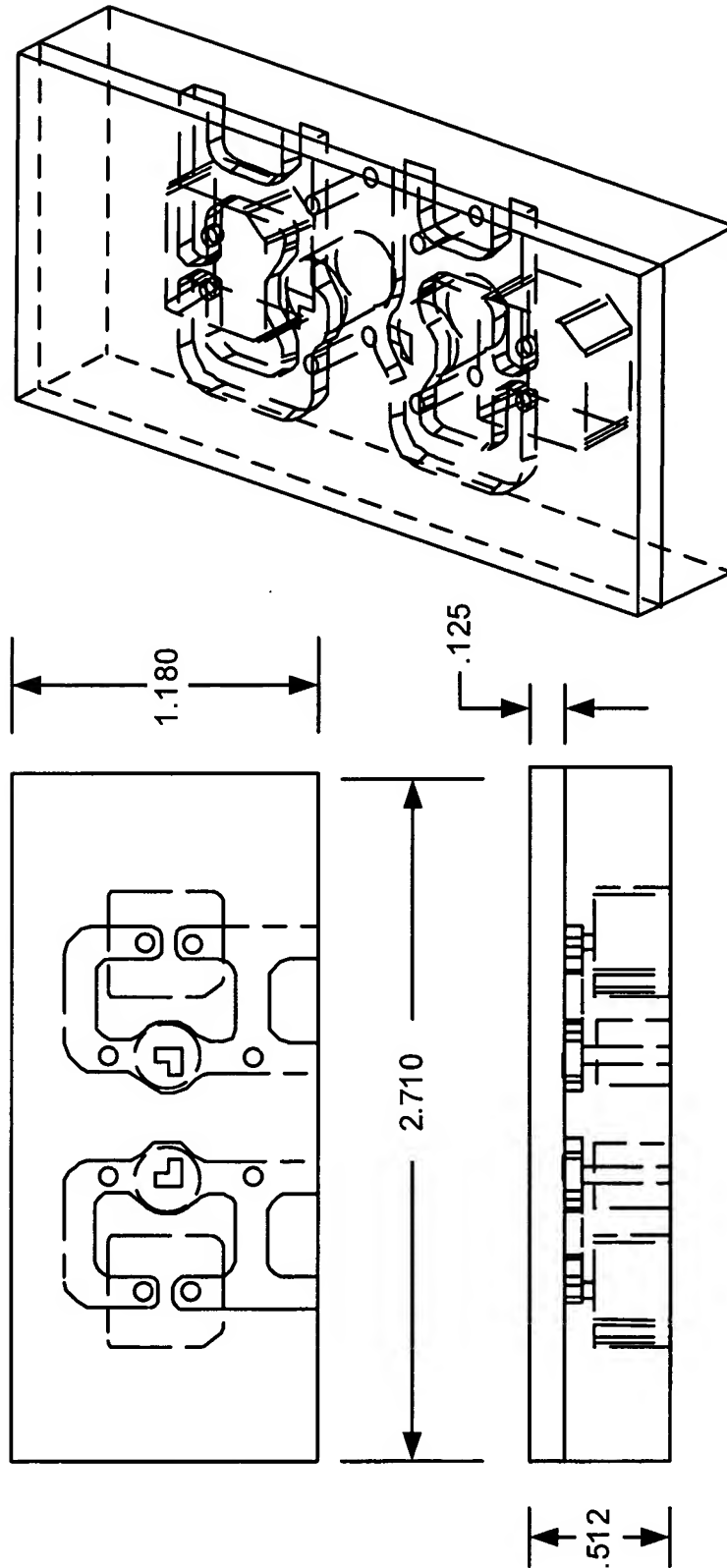
APOLLO CHAMBER ASSEMBLY

FIG. 23

FIG. 24

CHAMBER AND TOP LAYER ASSEMBLY

(OVERSIZED MARK ON TOP LAYER FOR VIEWING)

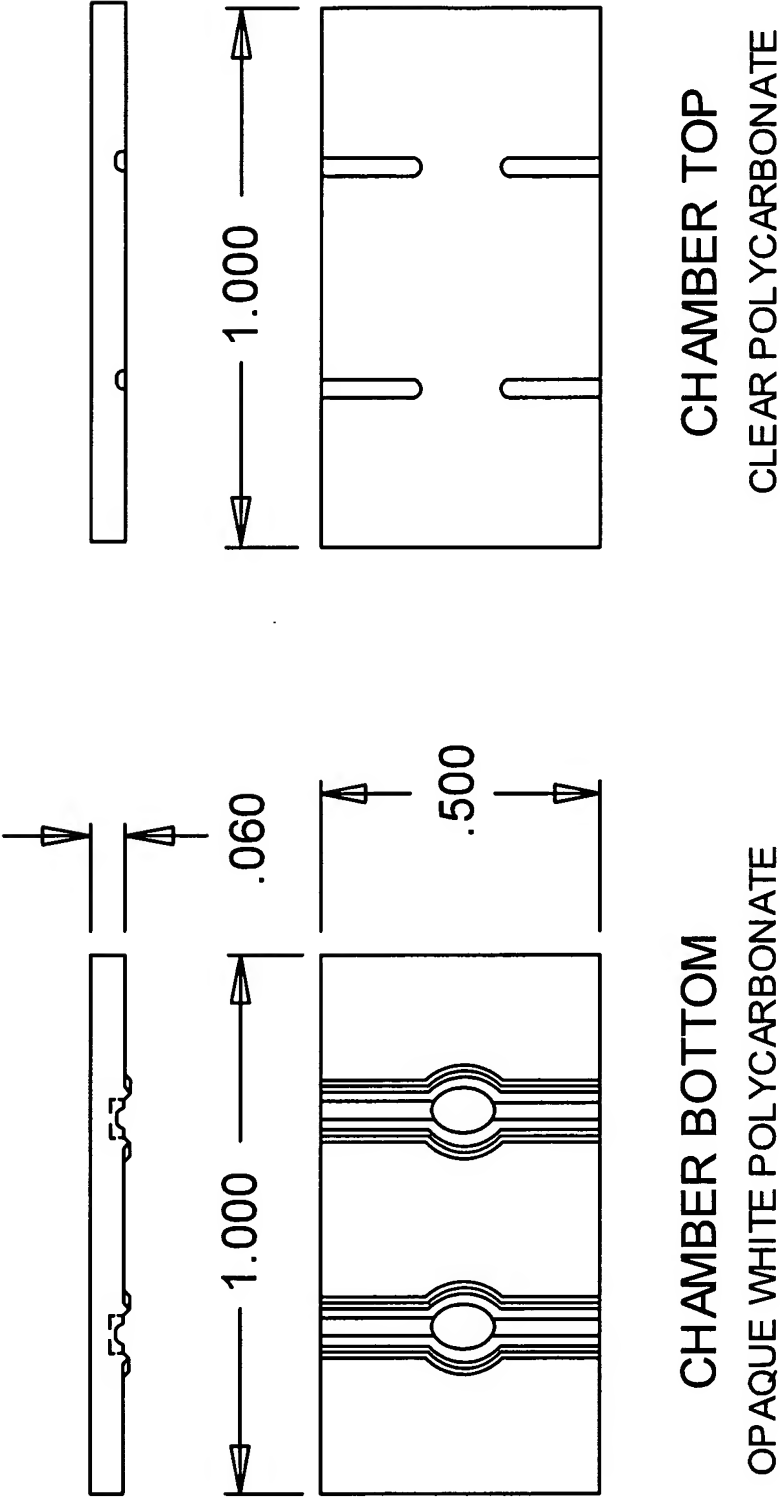


SCALE 1.750

SCALE 2.000

CLEAR POLYCARBONATE

FIG. 25A



GEMINI 3 CHAMBER COMPONENTS

FIG. 25B

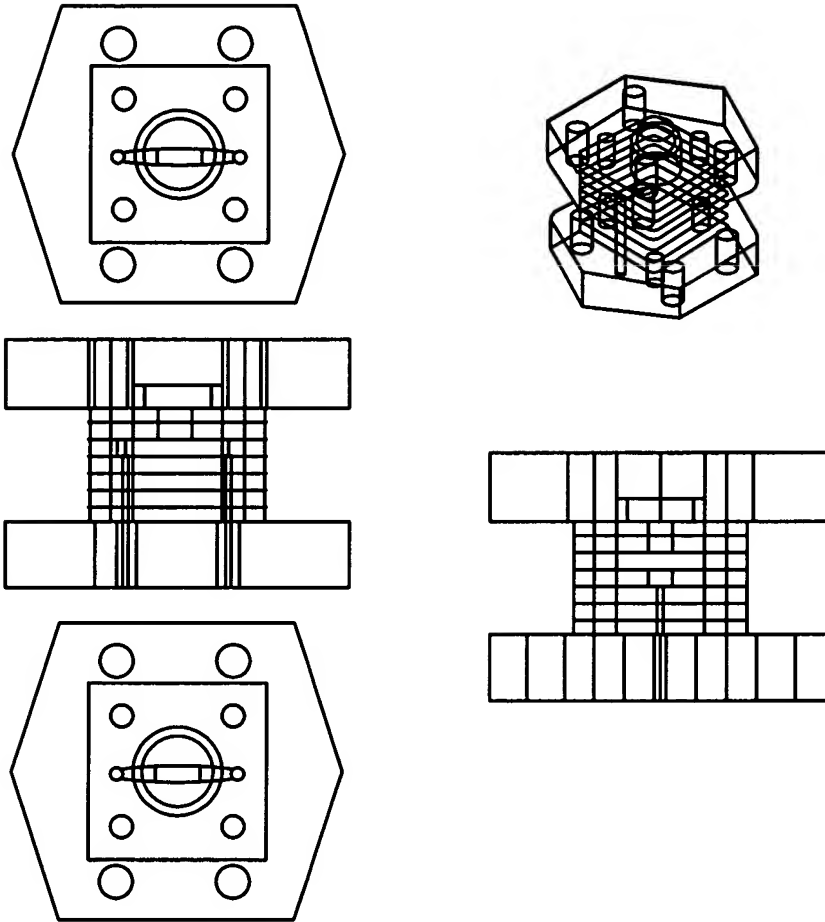


FIG. 26A



FIG. 26B

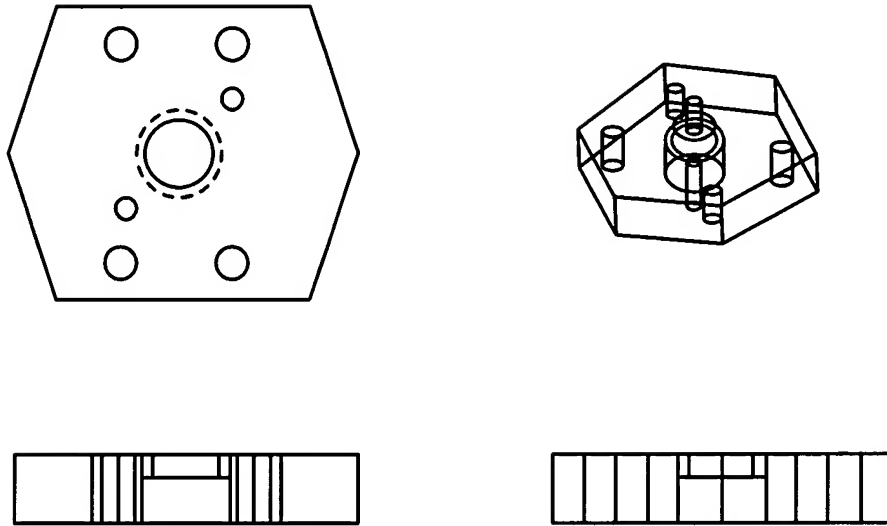


FIG. 27

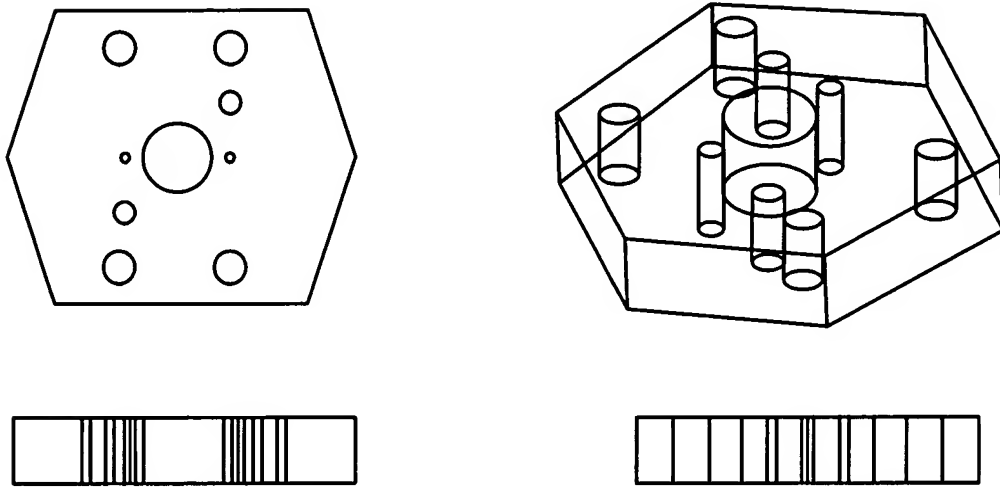


FIG. 28A

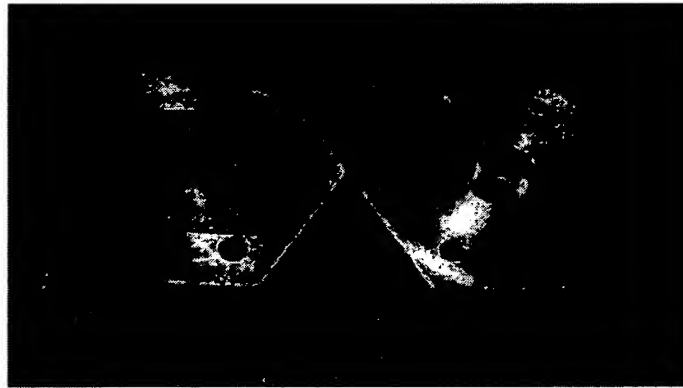


FIG. 28B

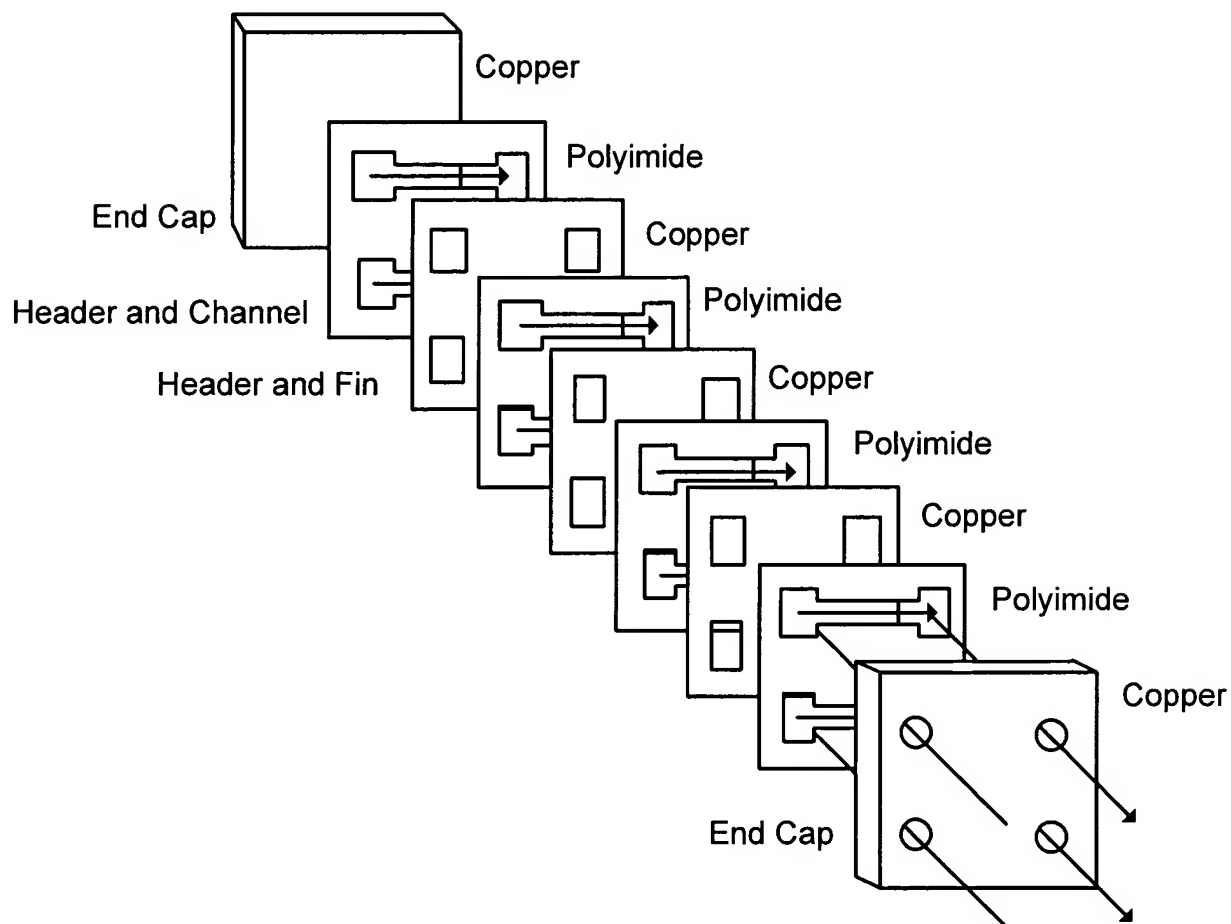


FIG. 29

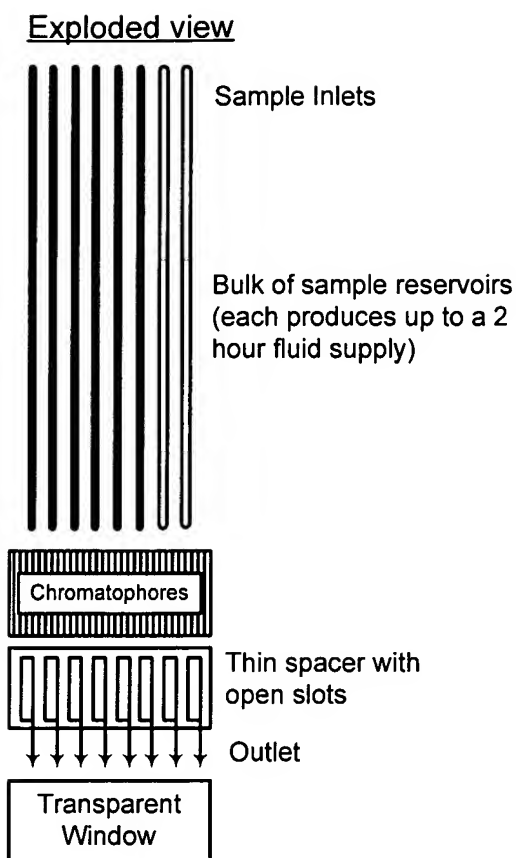


FIG. 30A

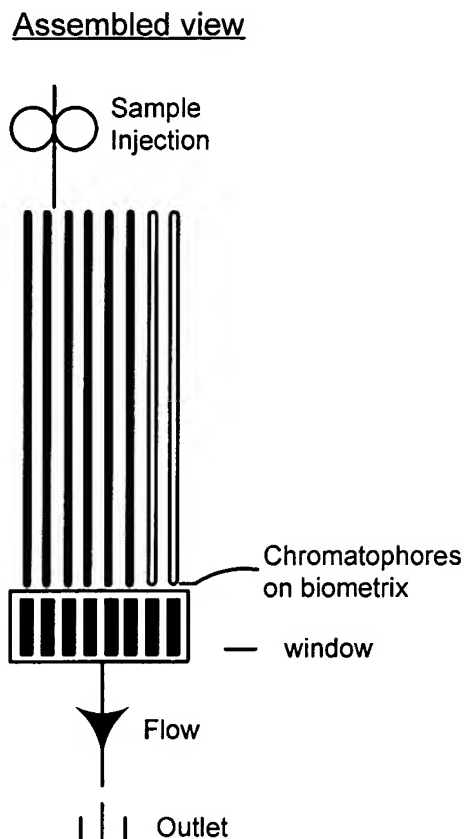


FIG. 30B

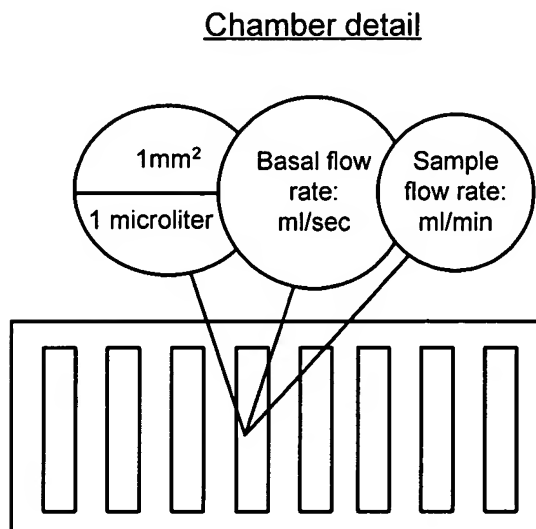


FIG. 30C

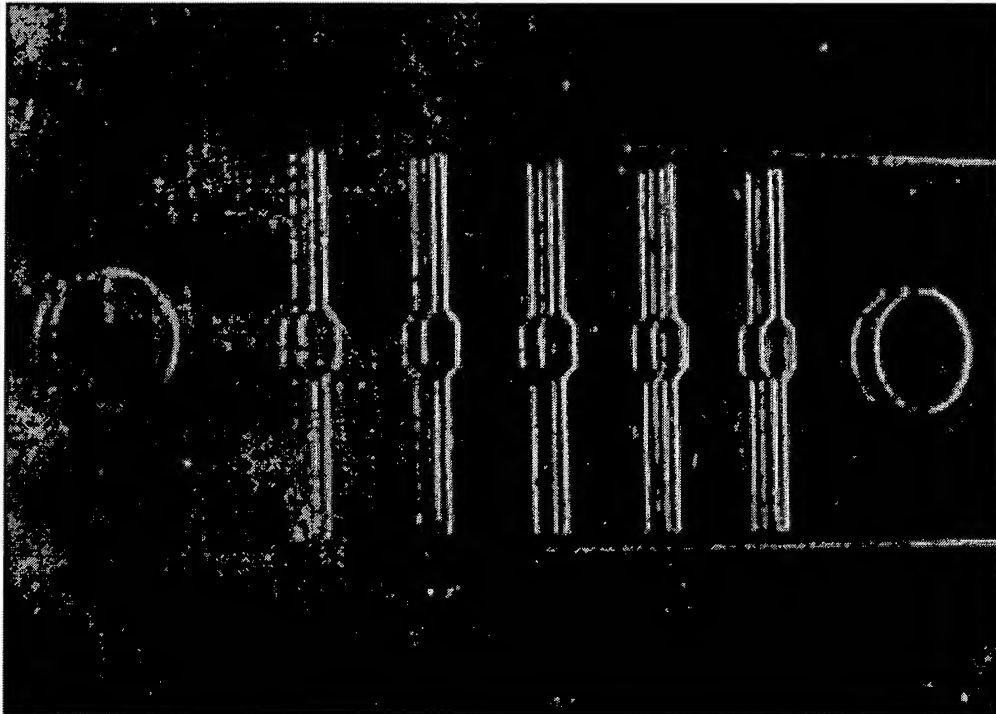


FIG. 31

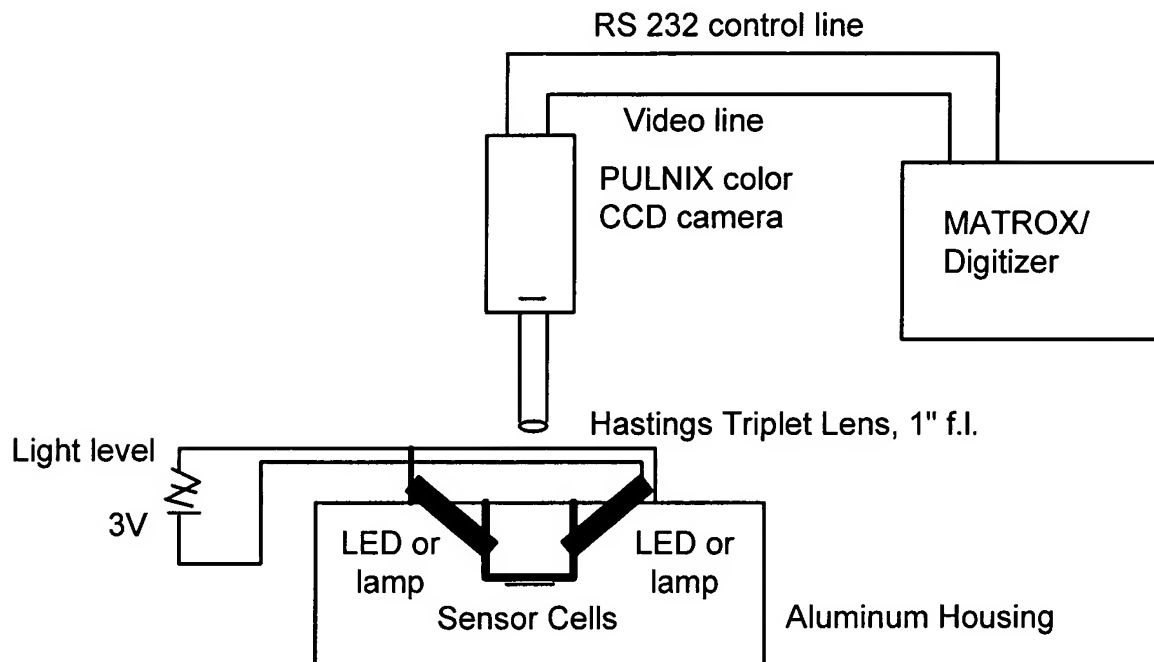


FIG. 32

Patent: Soft Classification Flowchart Version 1.0

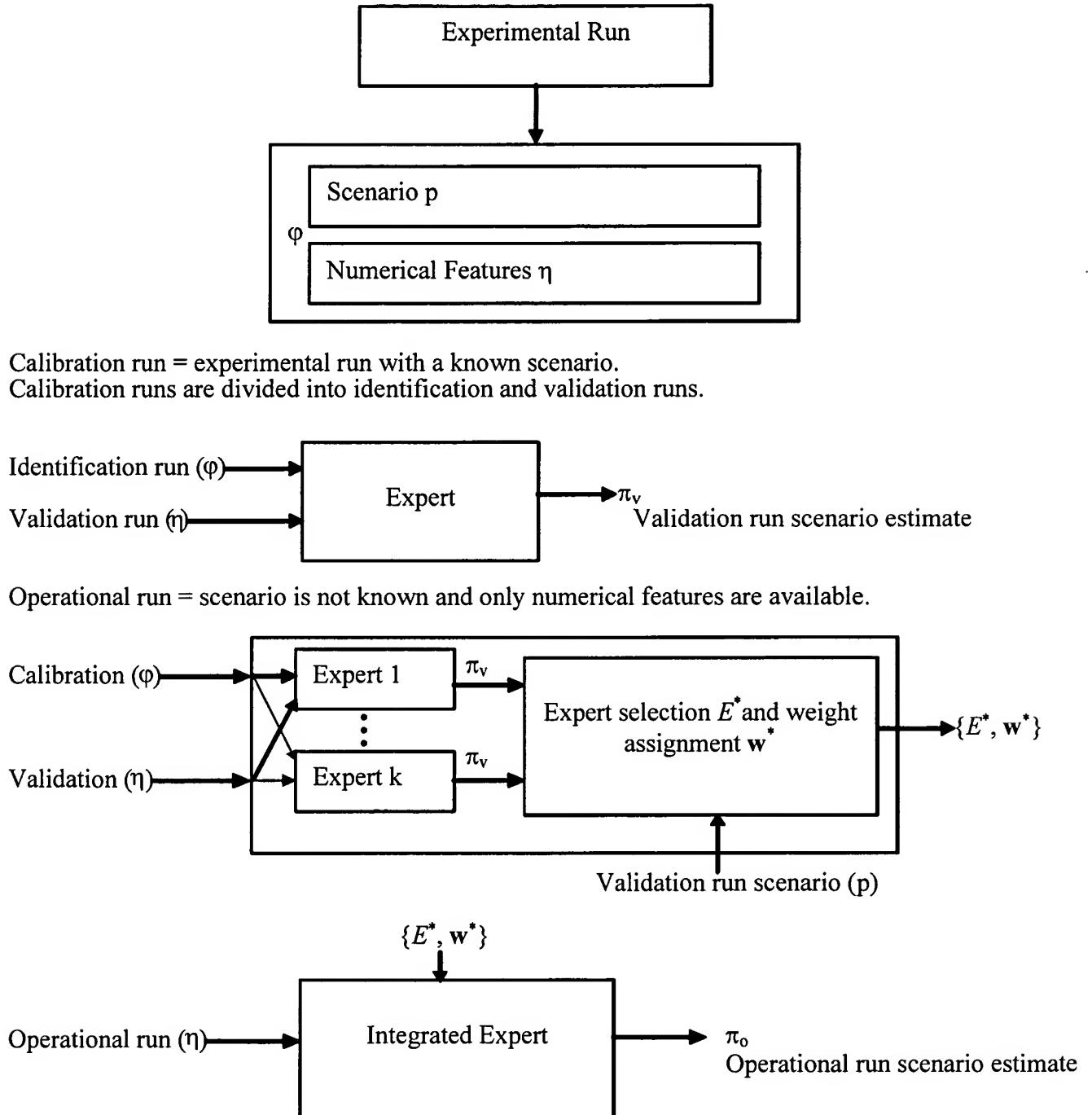


FIG. 33

FIG. 34A

(+) Ca^{2+}

Before

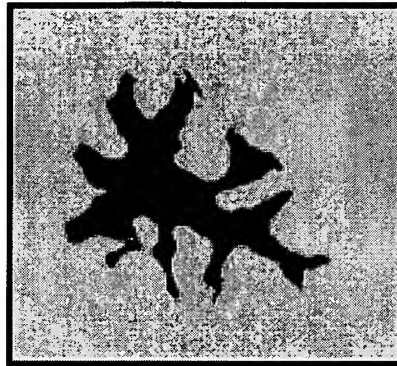
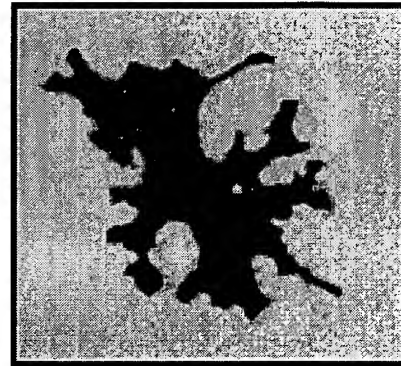


FIG. 35A

(-) Ca^{2+}



After 10nM
Norepinephrine

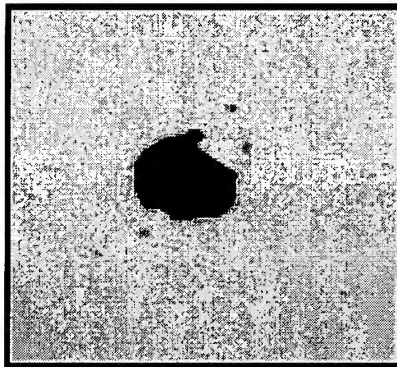


FIG. 34B

FIG. 35B

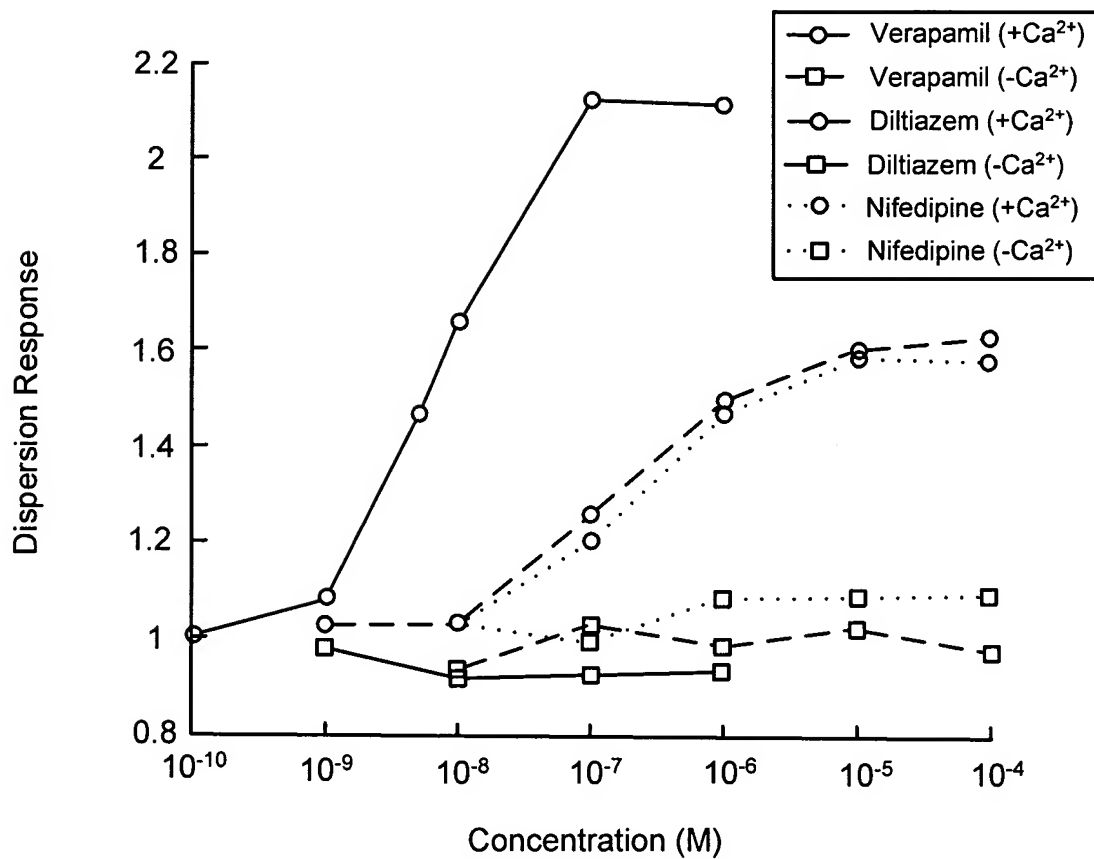


FIG. 36

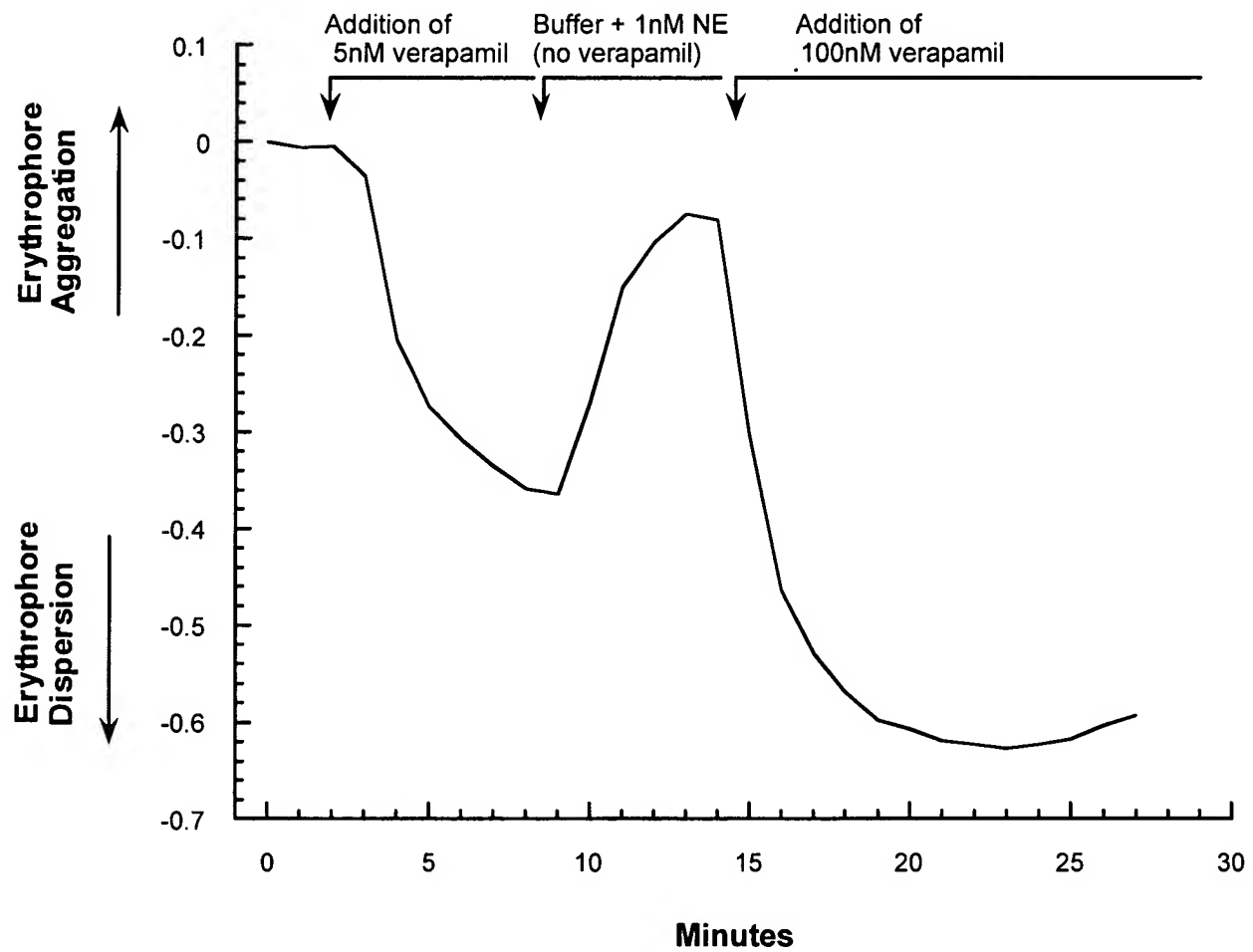


FIG. 37

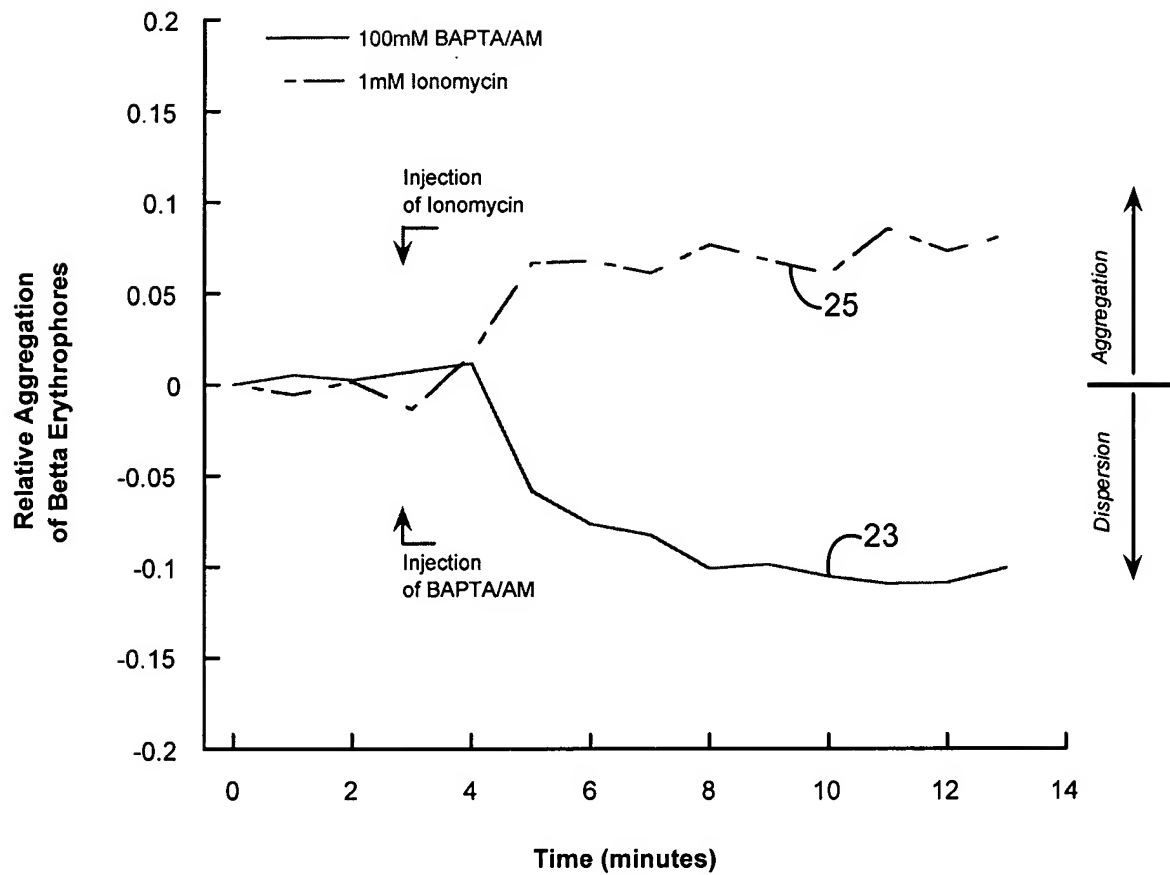


FIG. 38

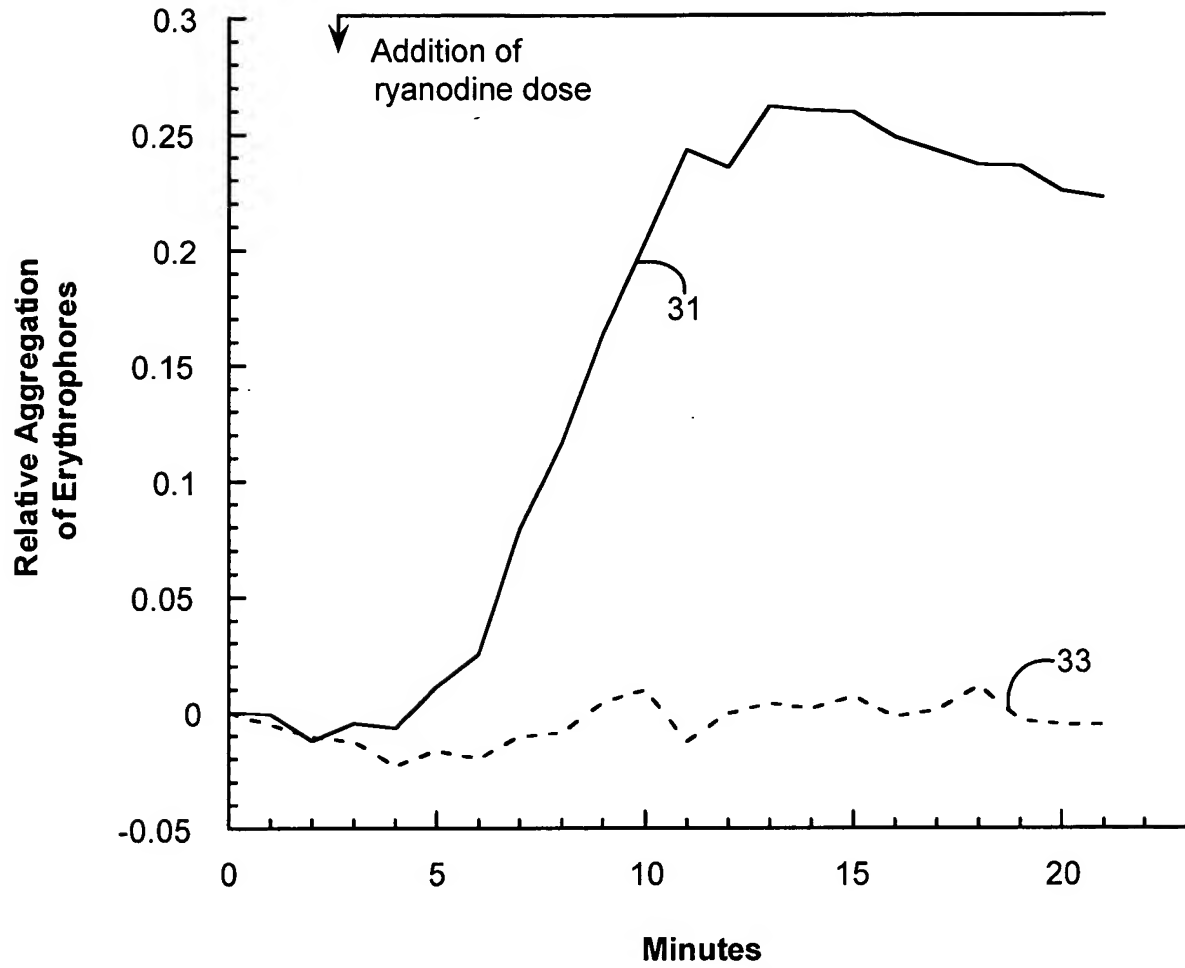


FIG. 39

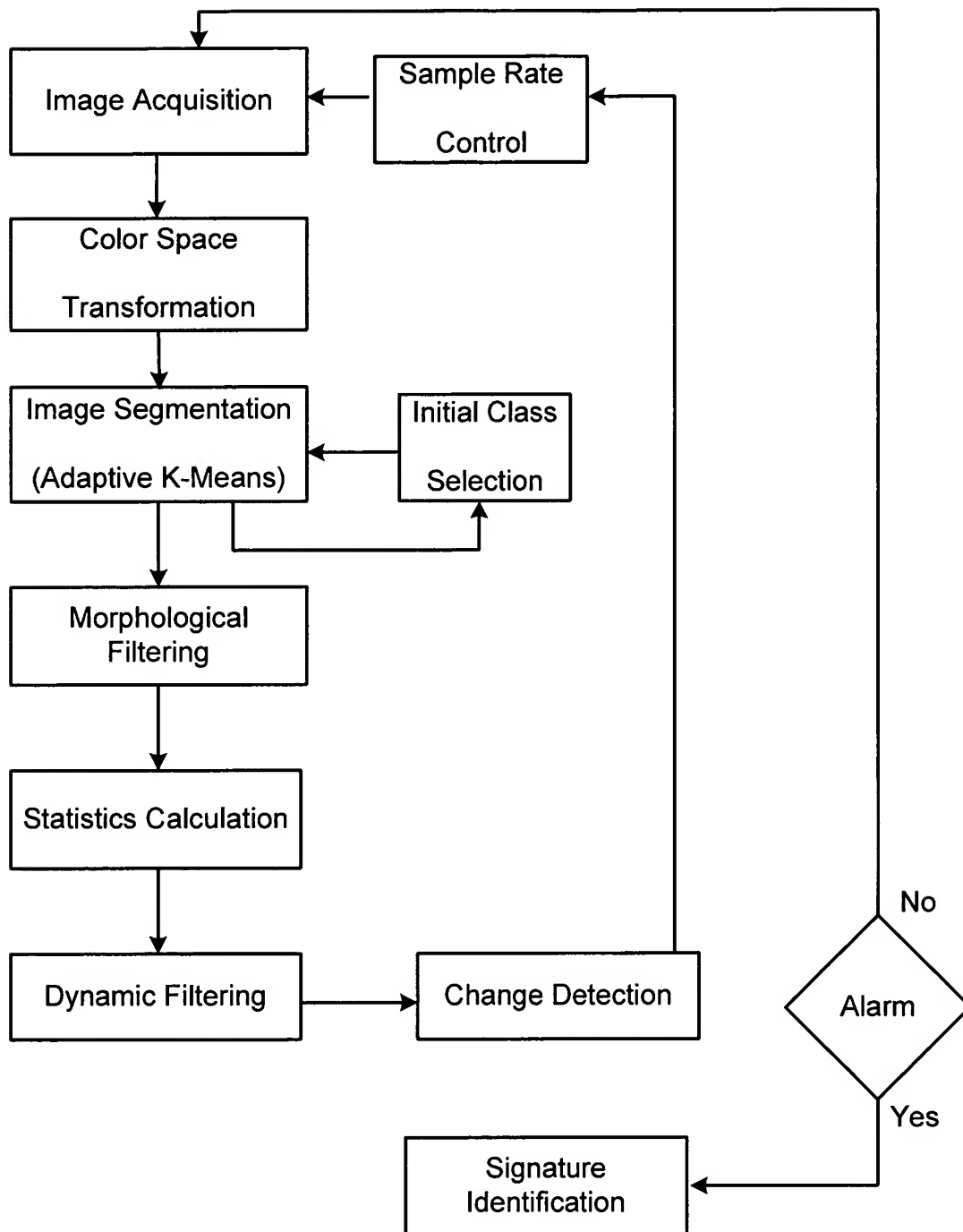


FIG. 40

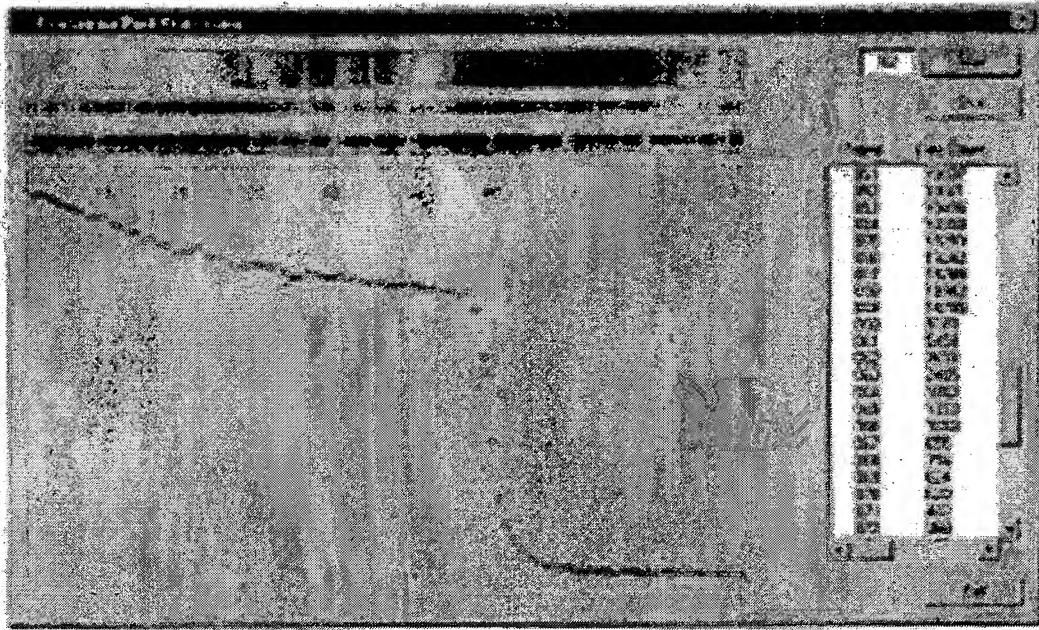


FIG. 41

Na-ALGINATE FERROMAGNETIC

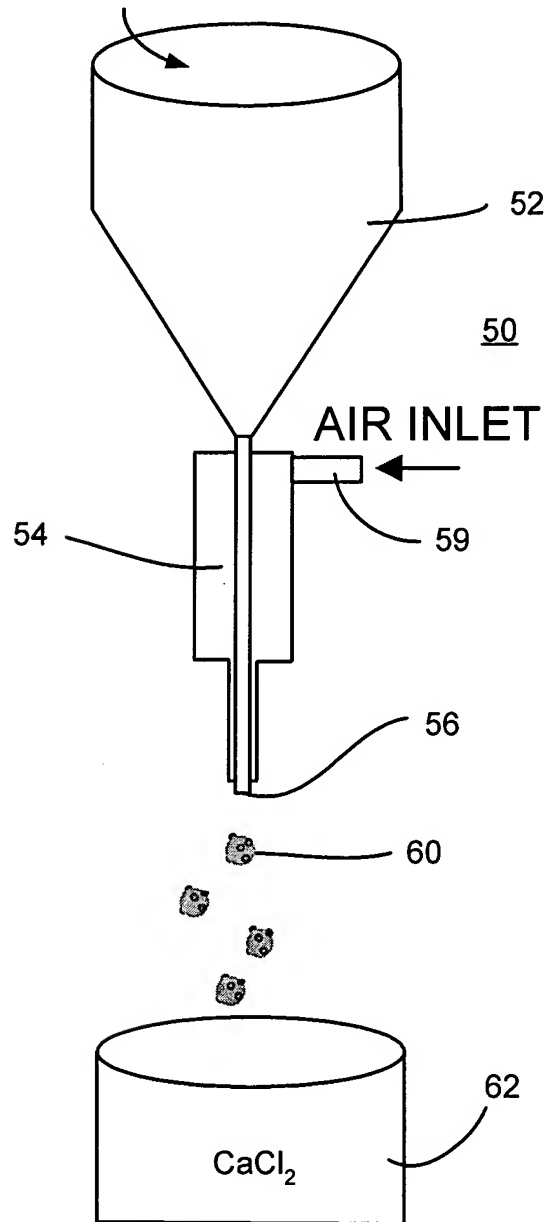


FIG. 42

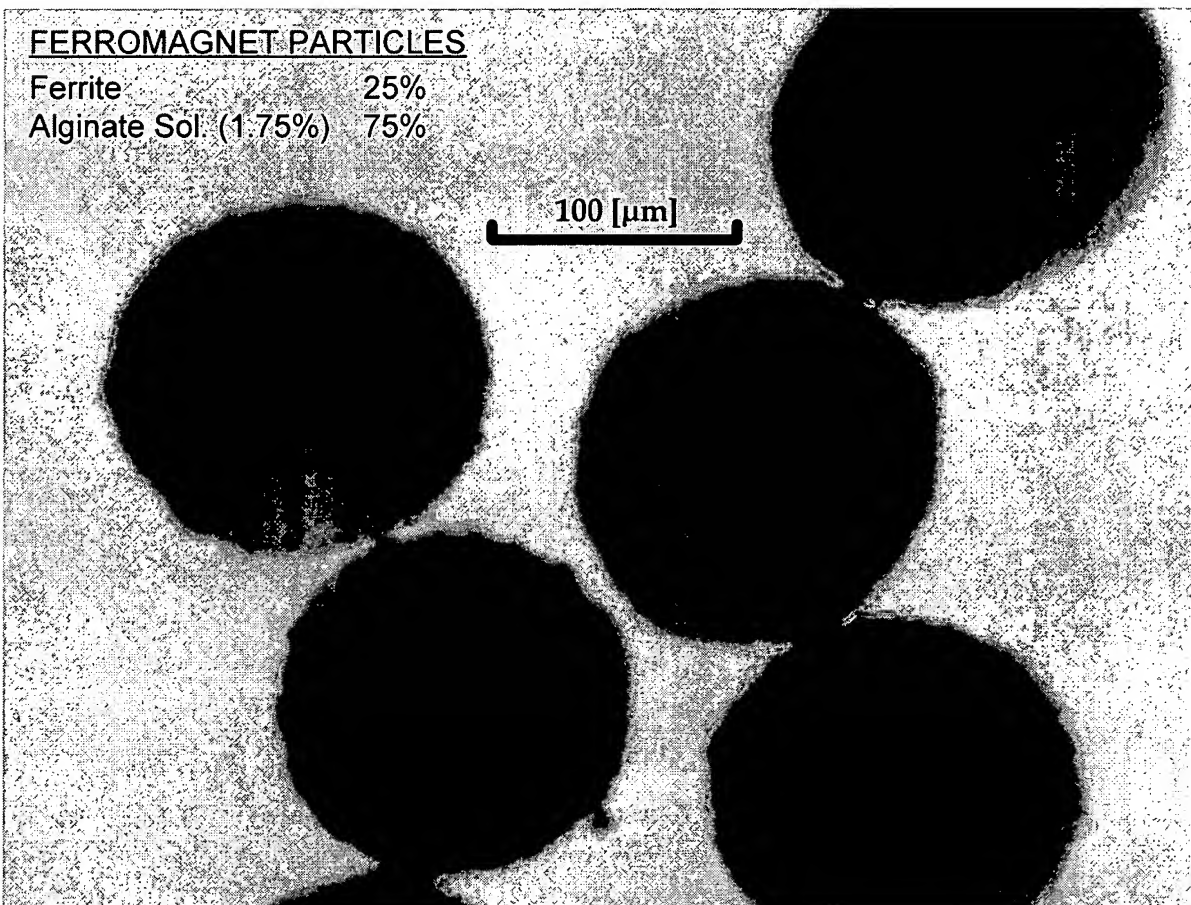
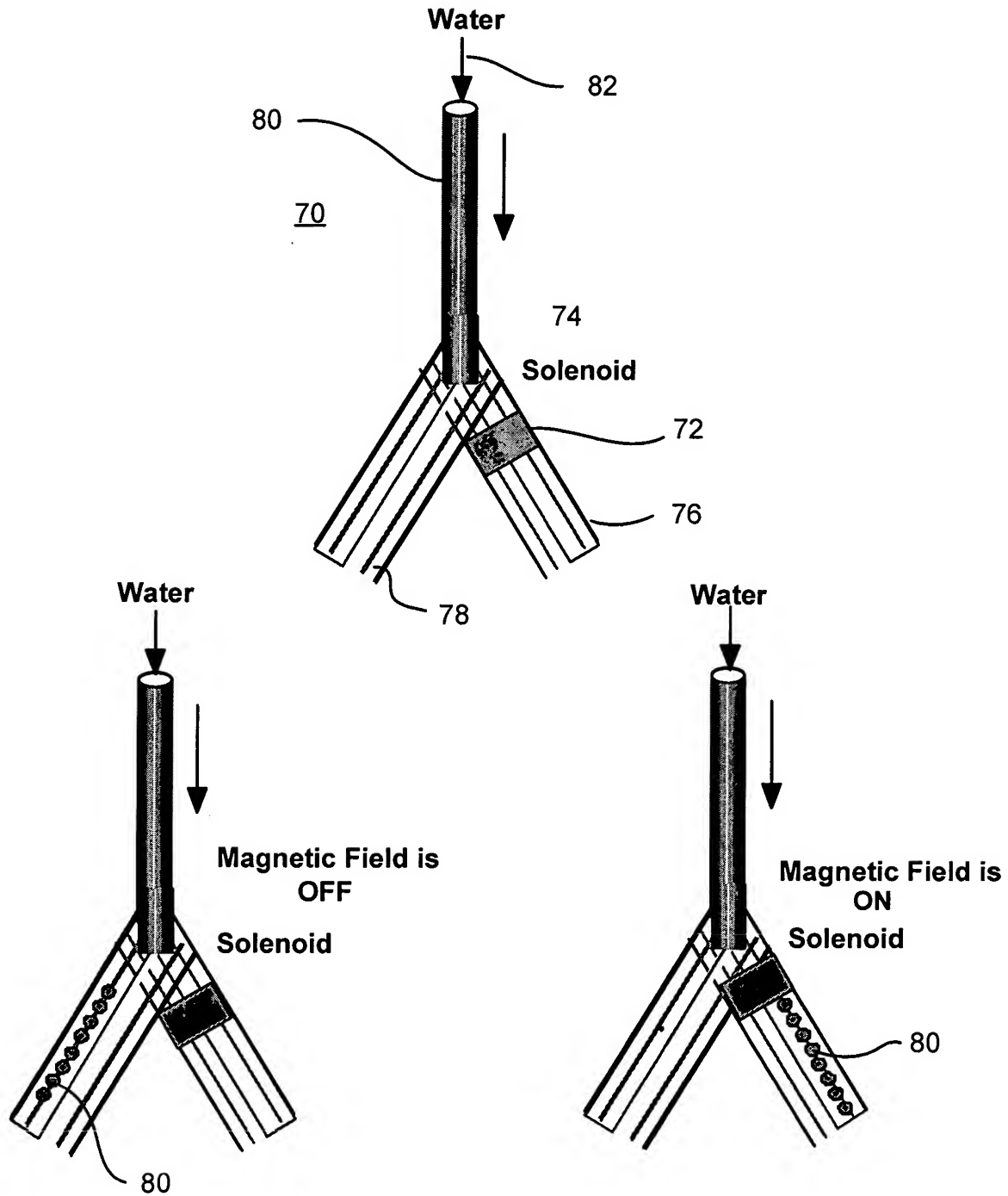


FIG. 43



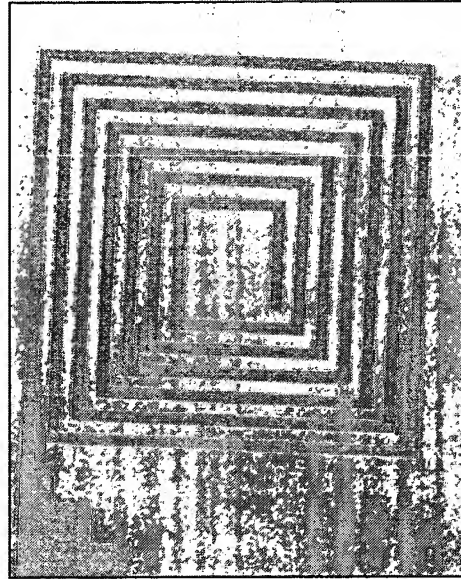
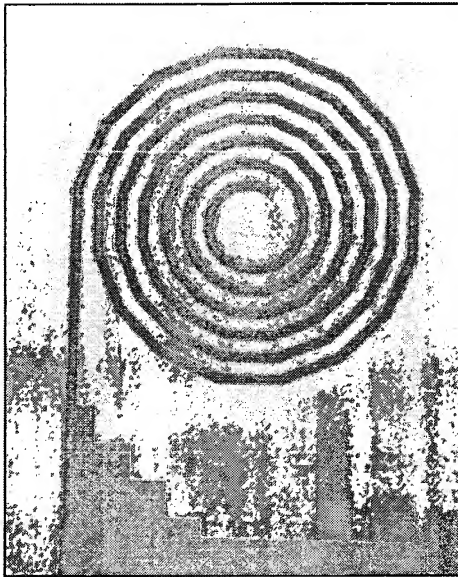


FIG. 45

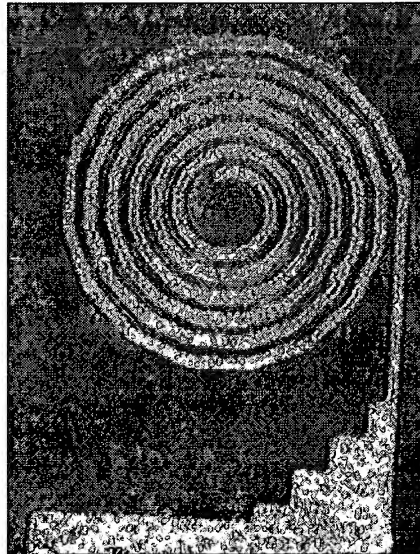


FIG. 46

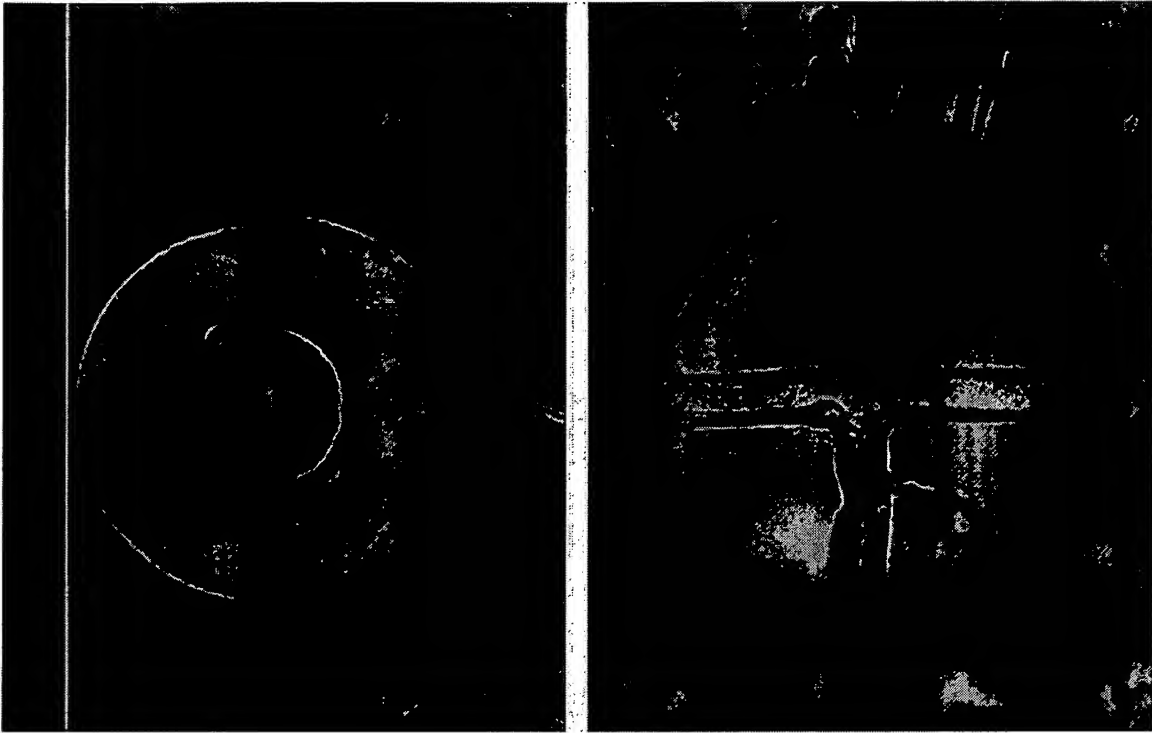


FIG. 47

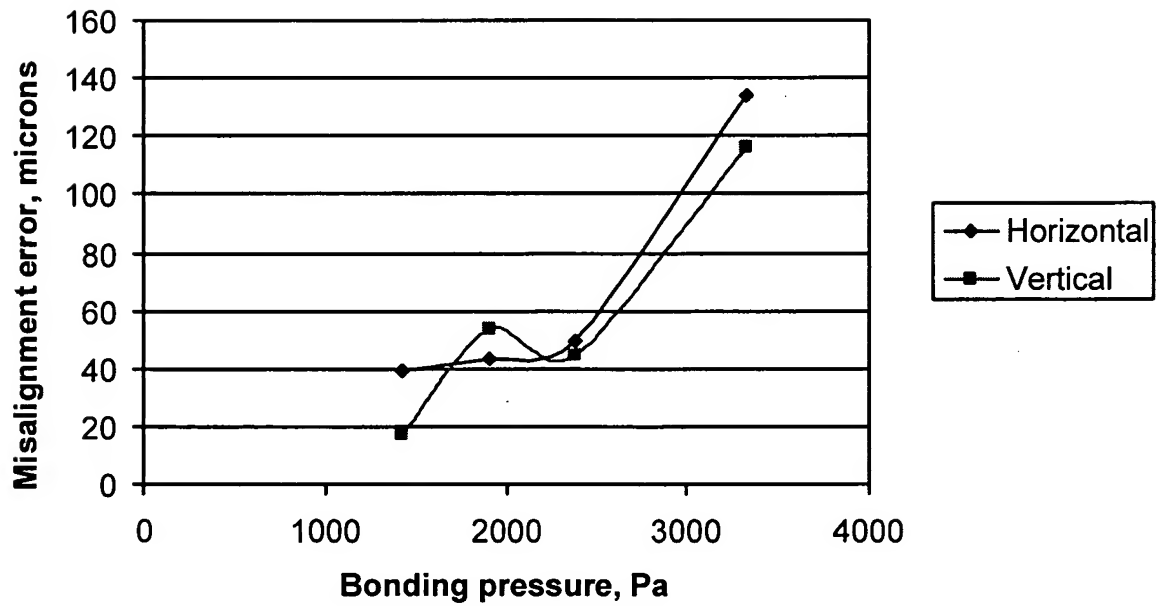


FIG. 48

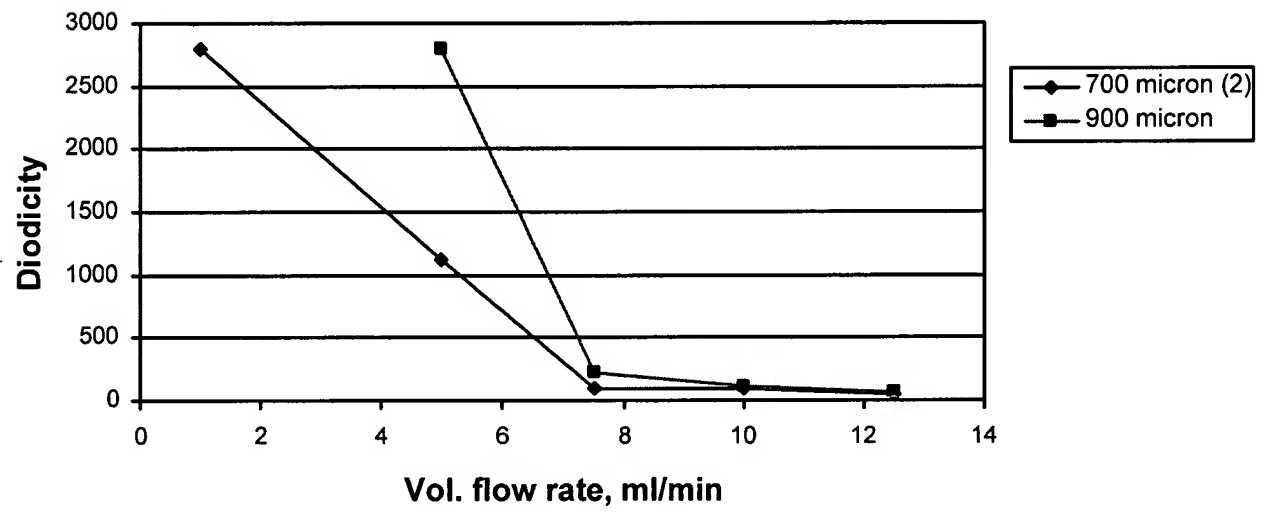


FIG. 49



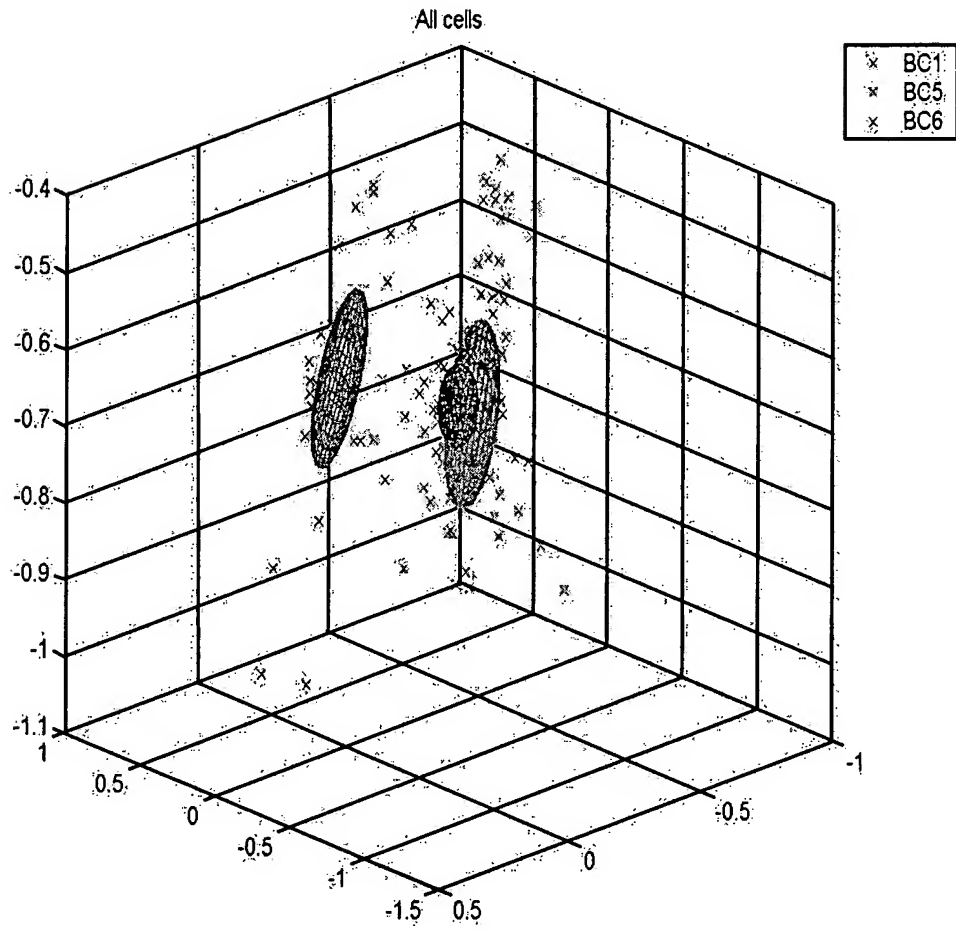


FIG. 51

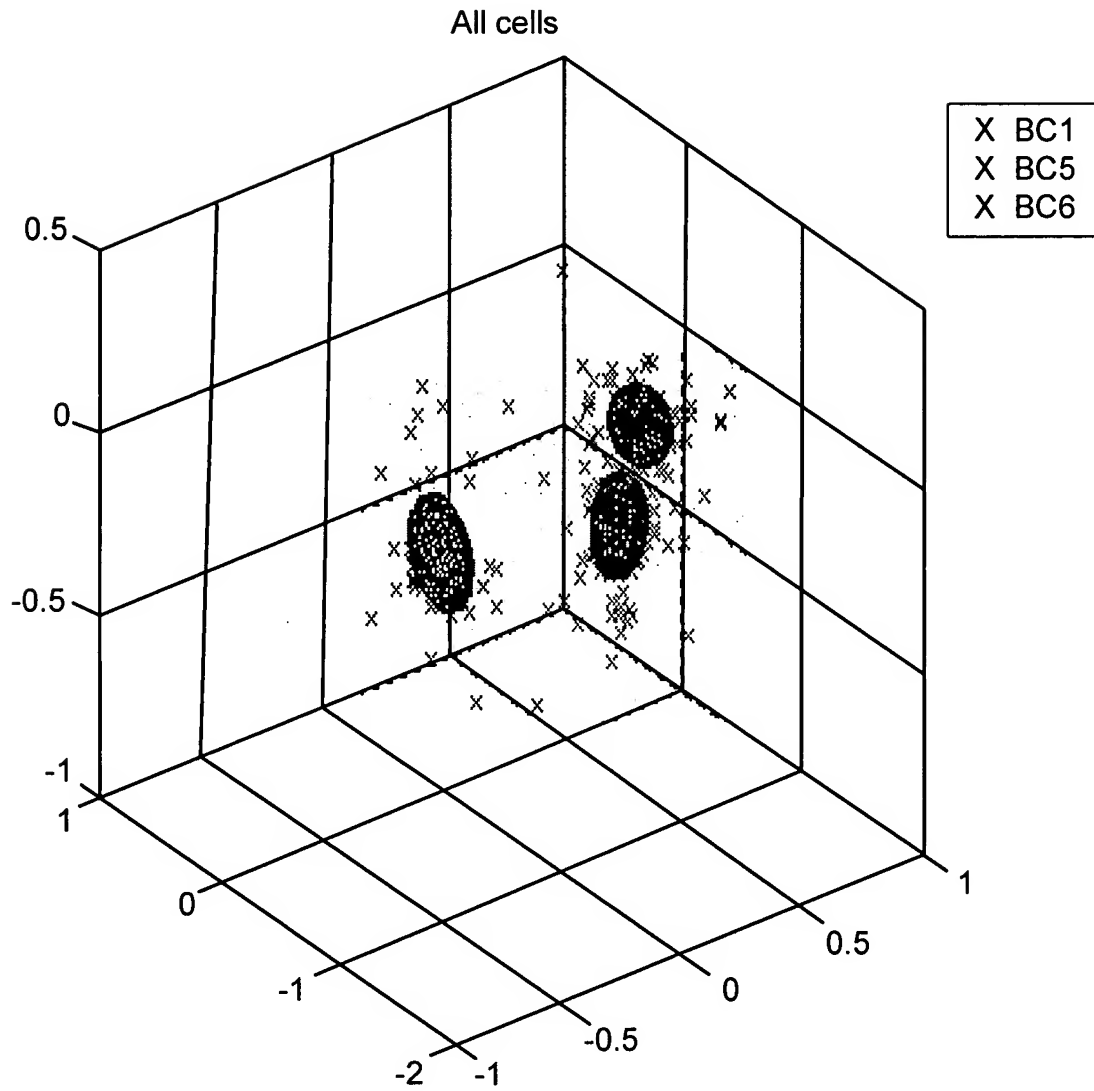


FIG. 52

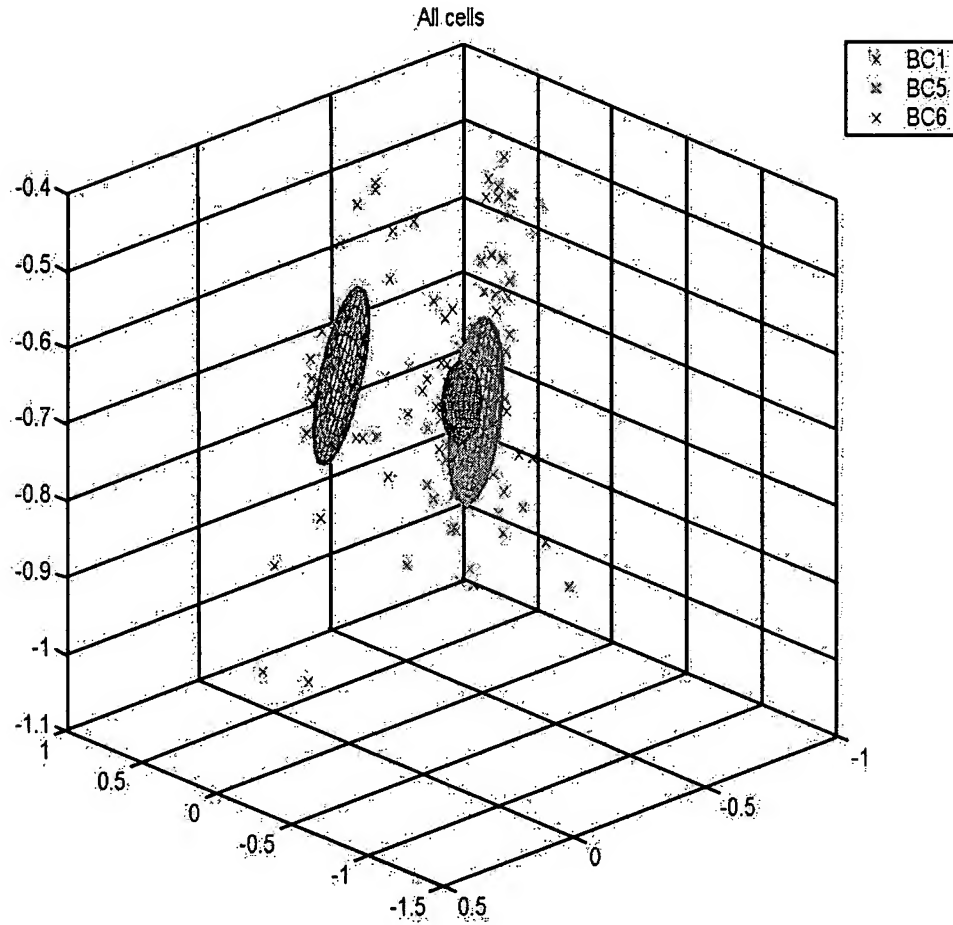


FIG. 53

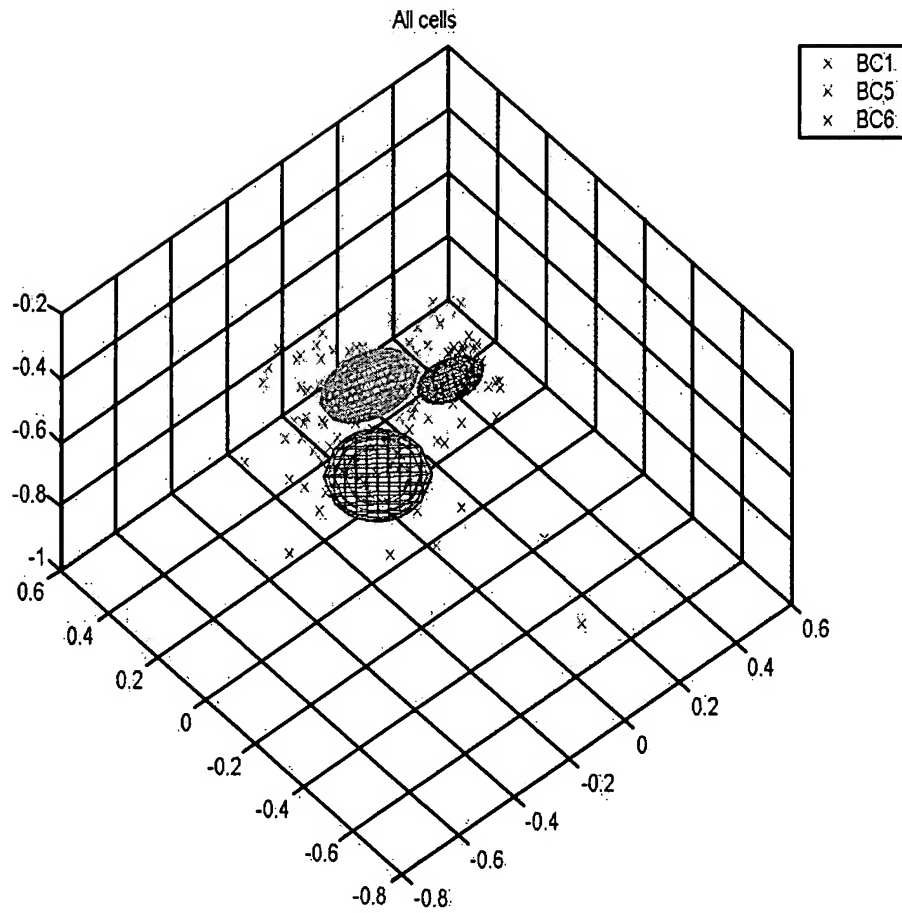


FIG. 54

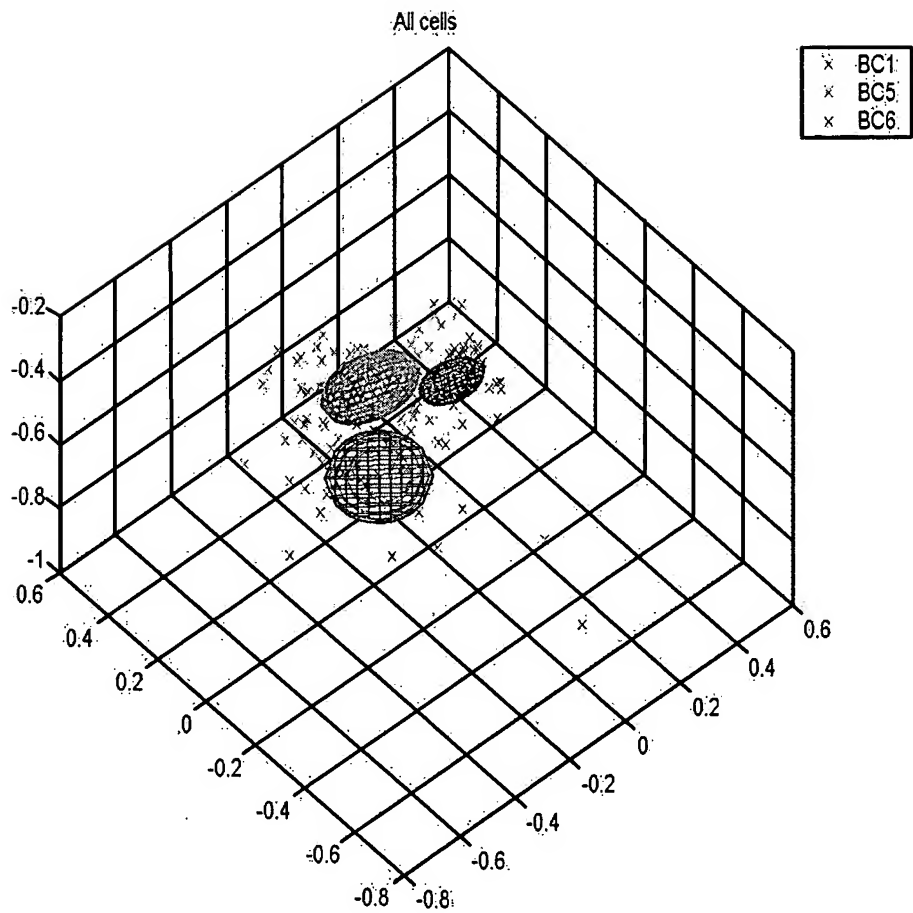


FIG. 55

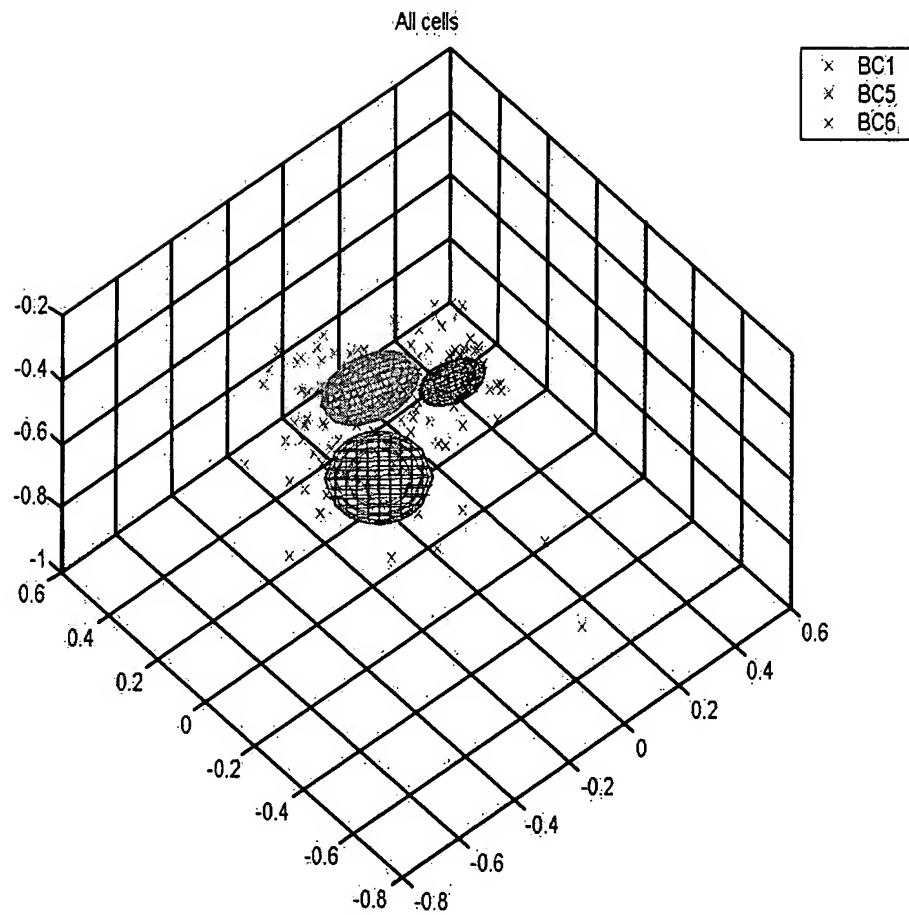


FIG. 56

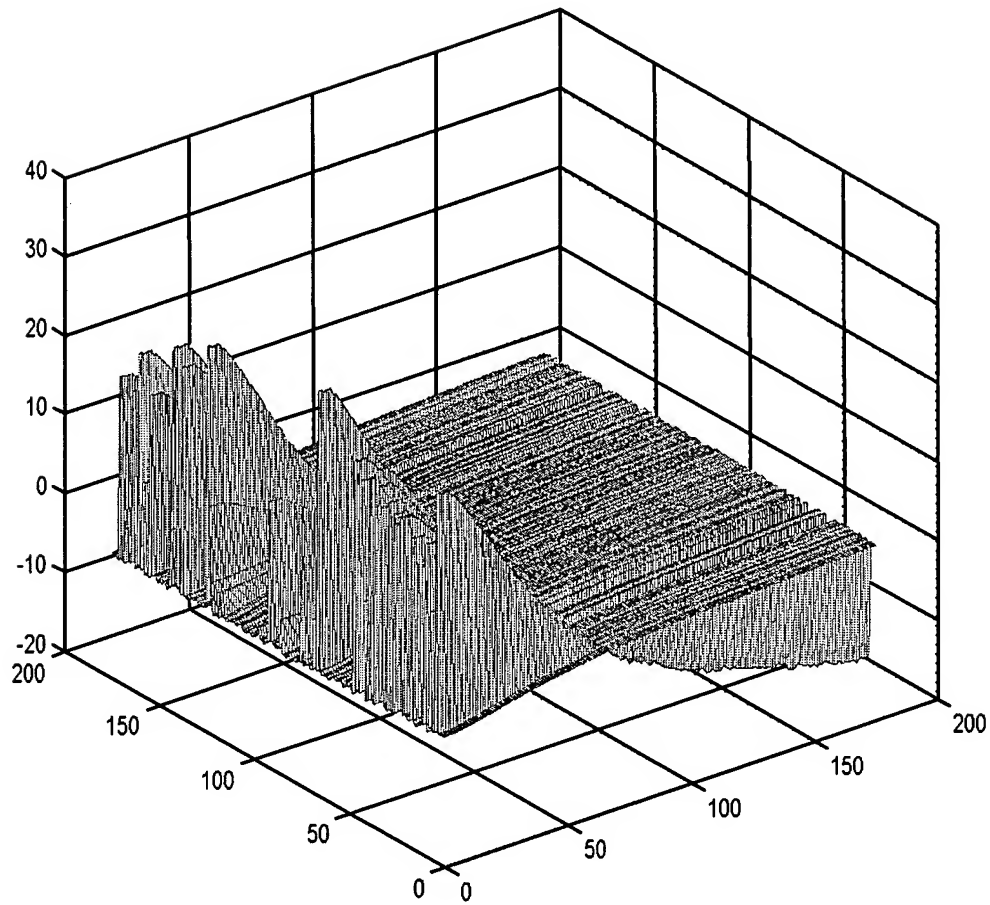


FIG. 57A

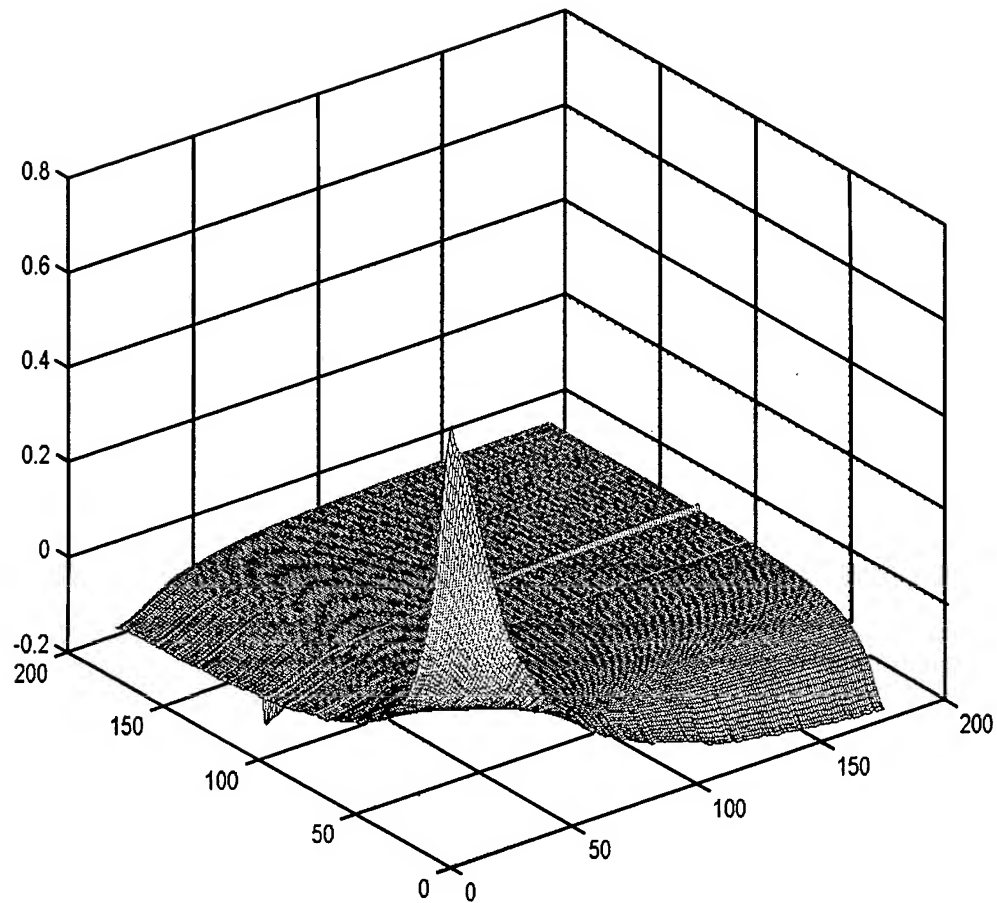


FIG. 57B

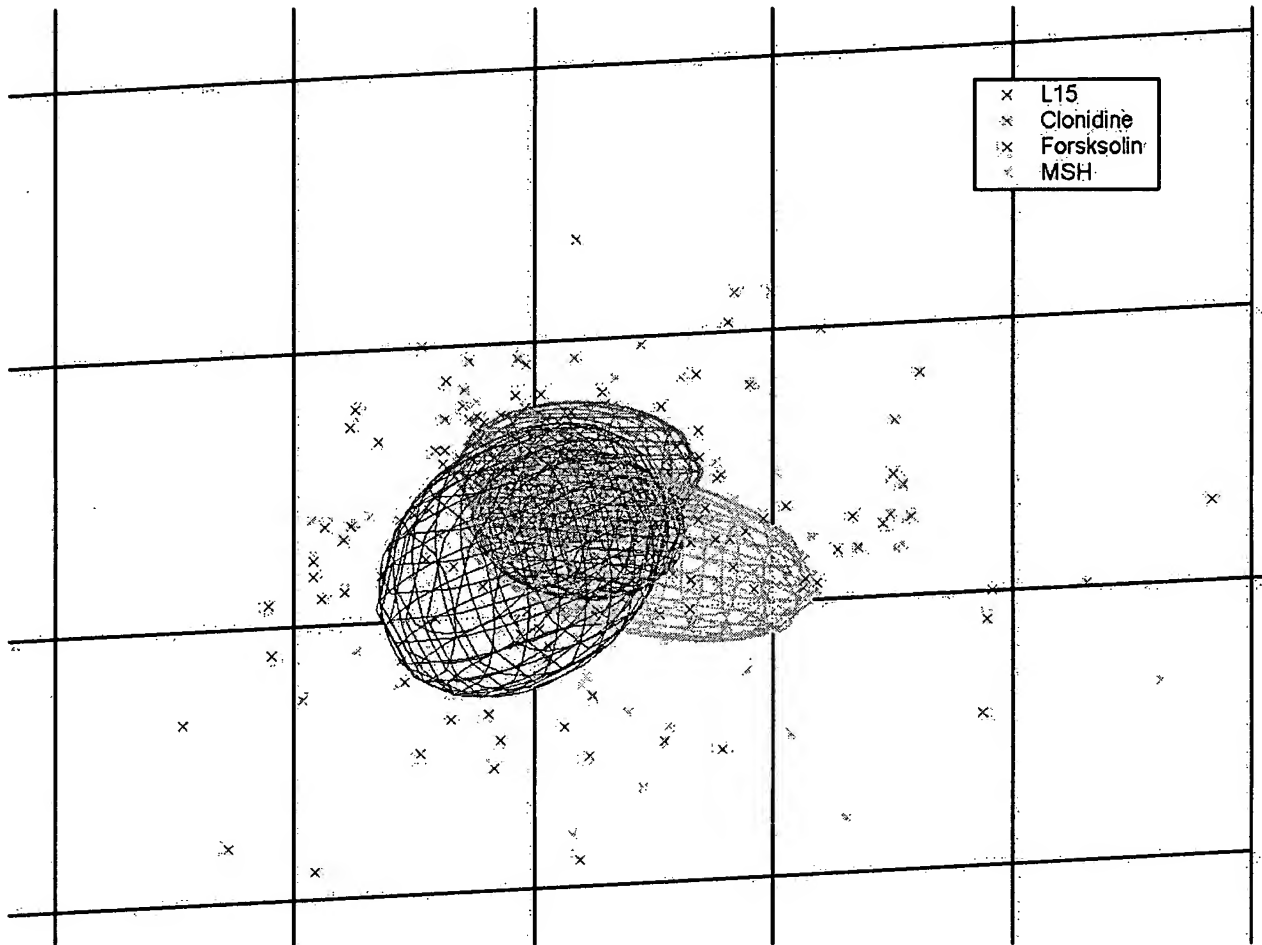


FIG. 58

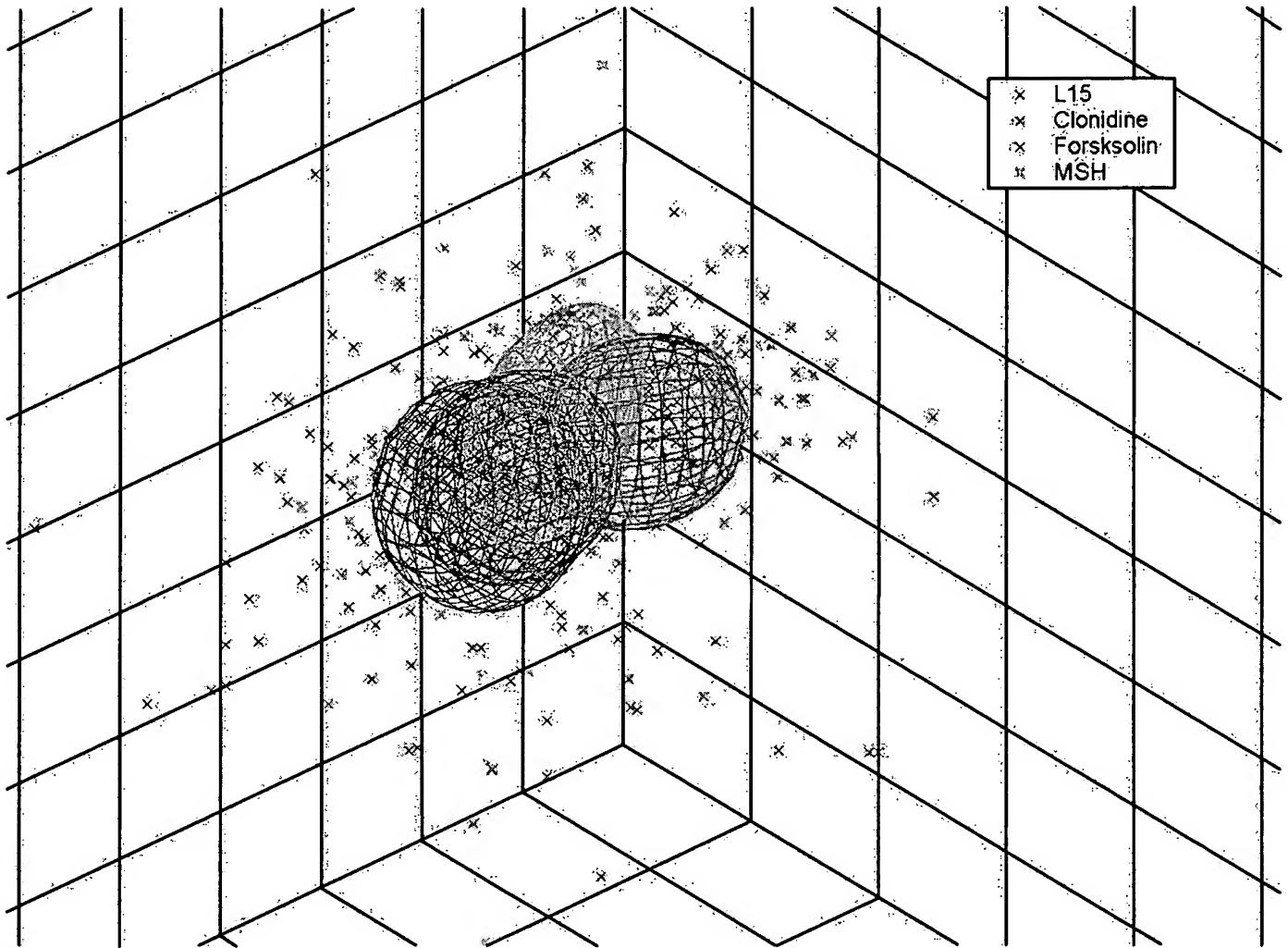


FIG. 59

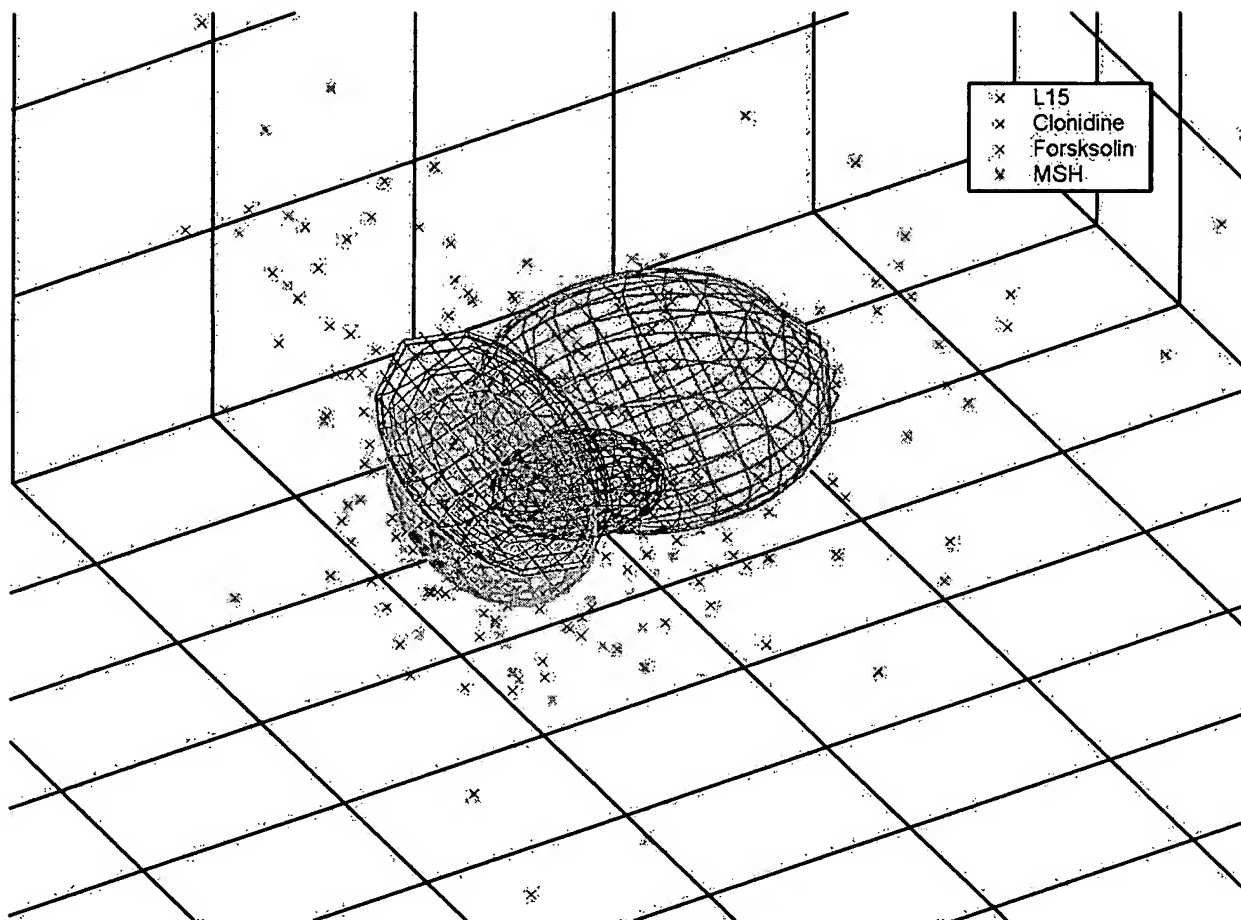


FIG. 60

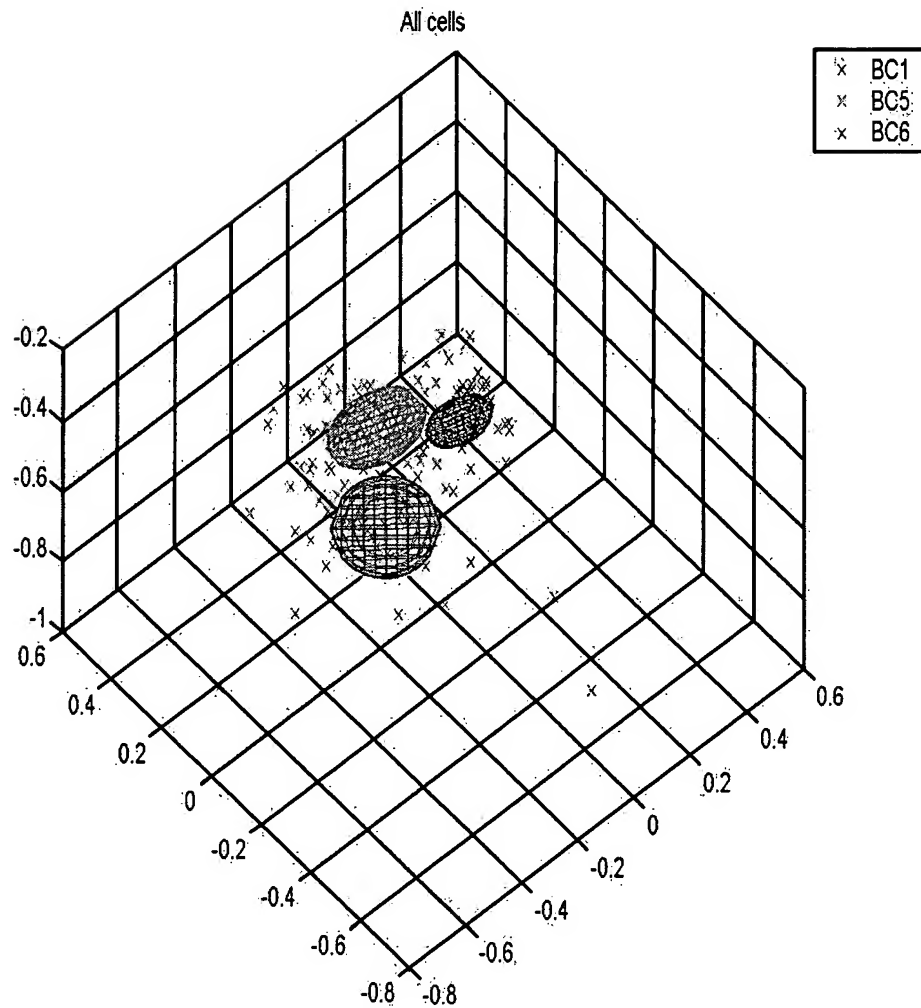


FIG. 61A

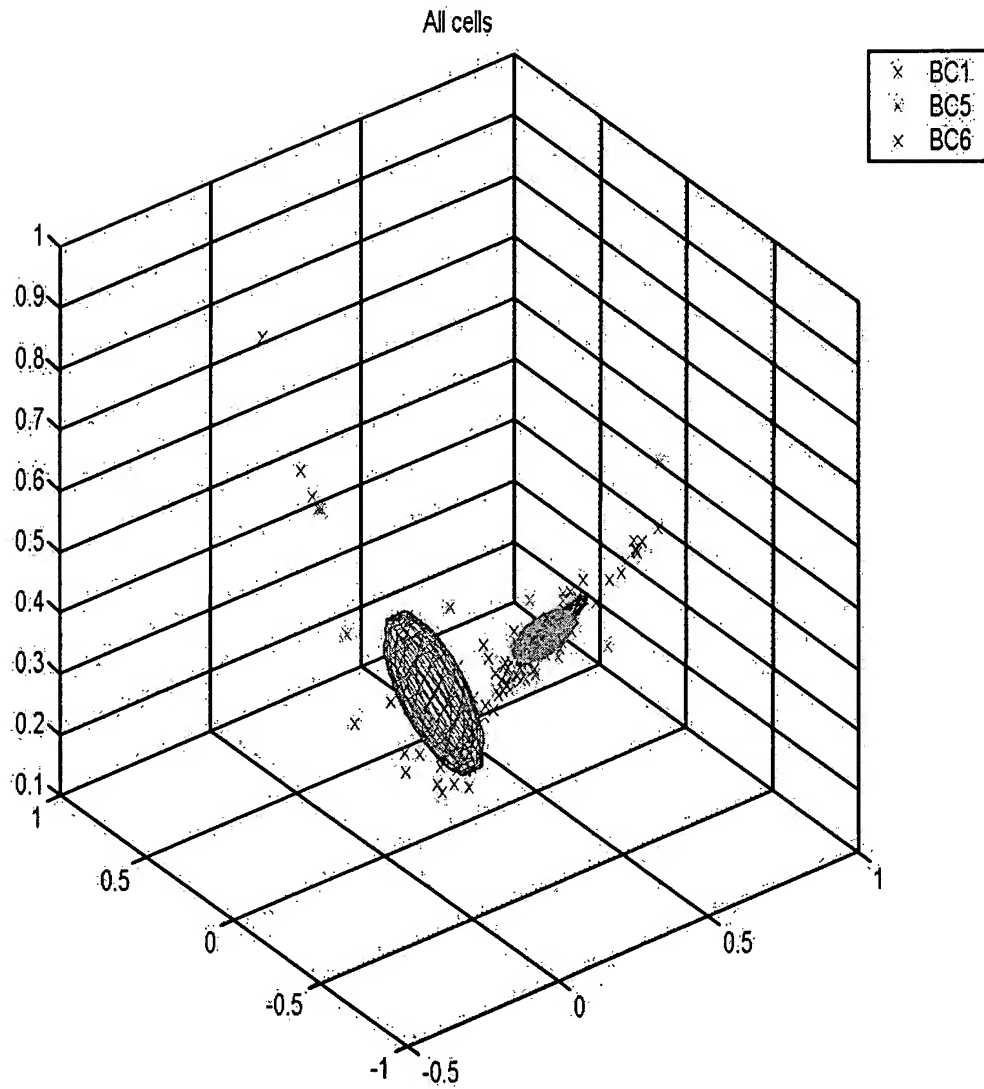


FIG. 61B

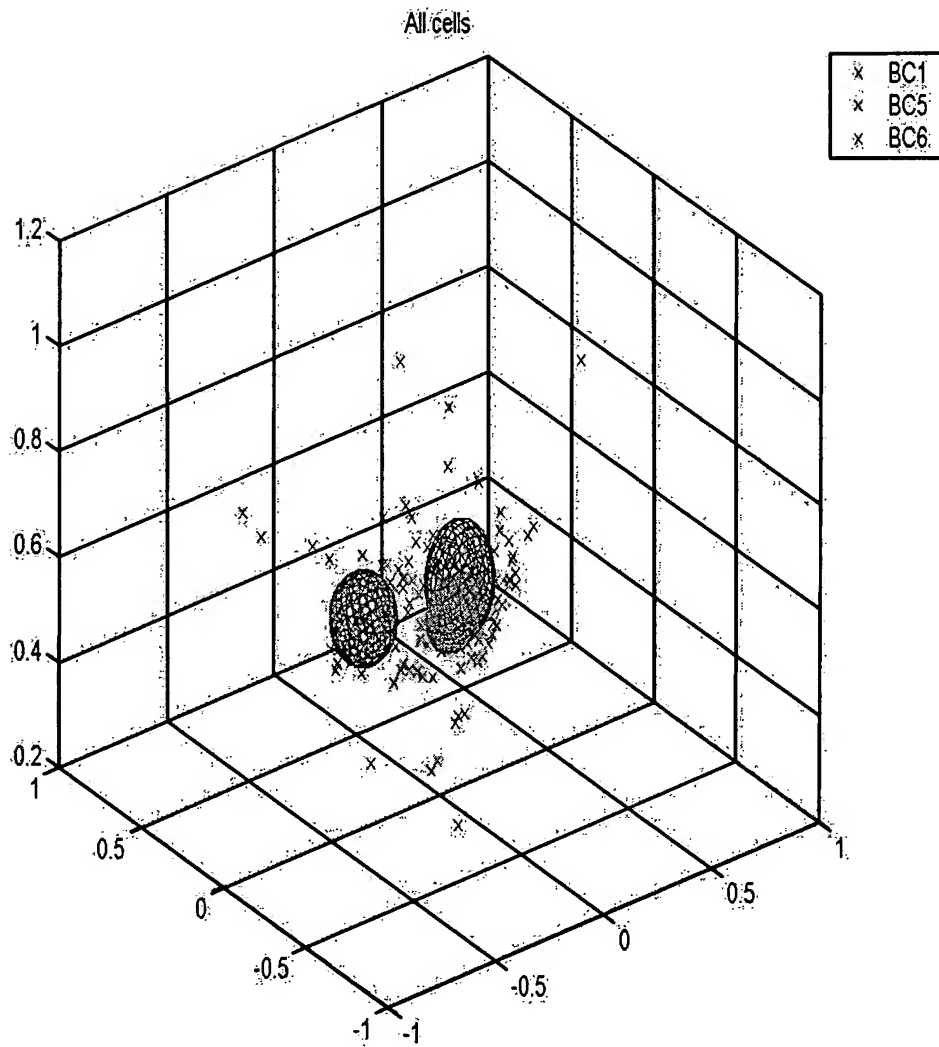


FIG. 61C

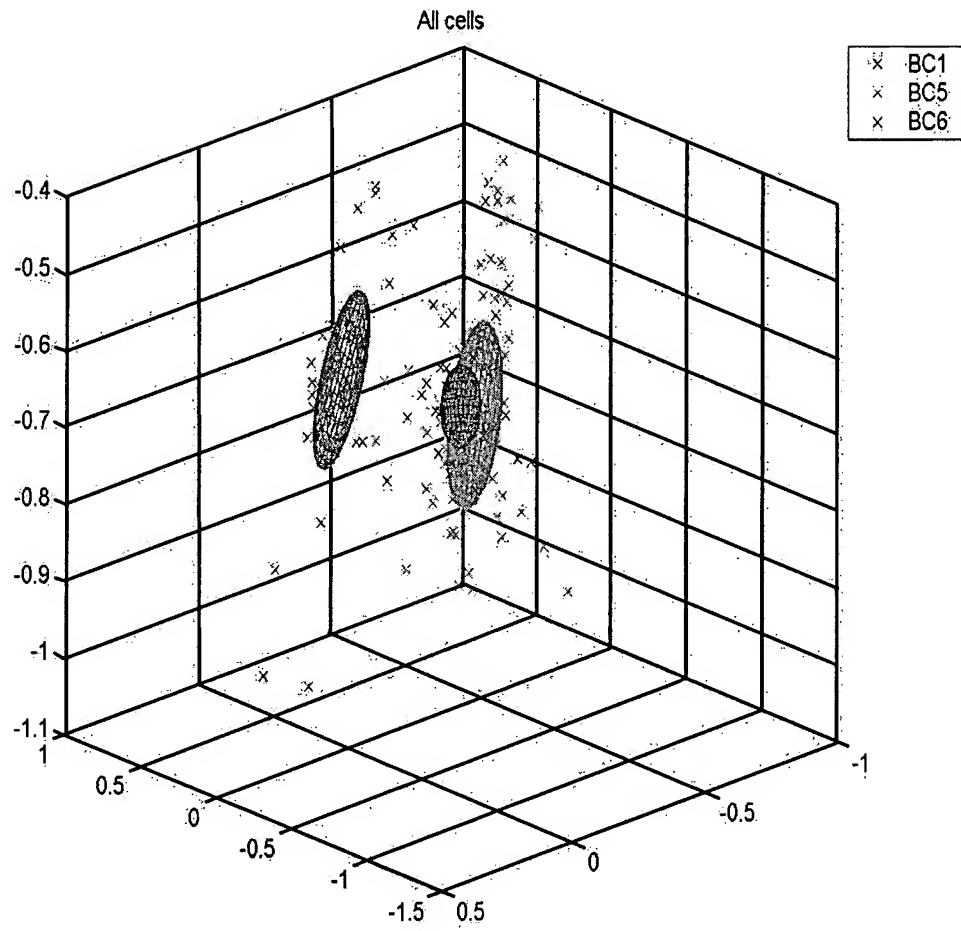


FIG. 61D

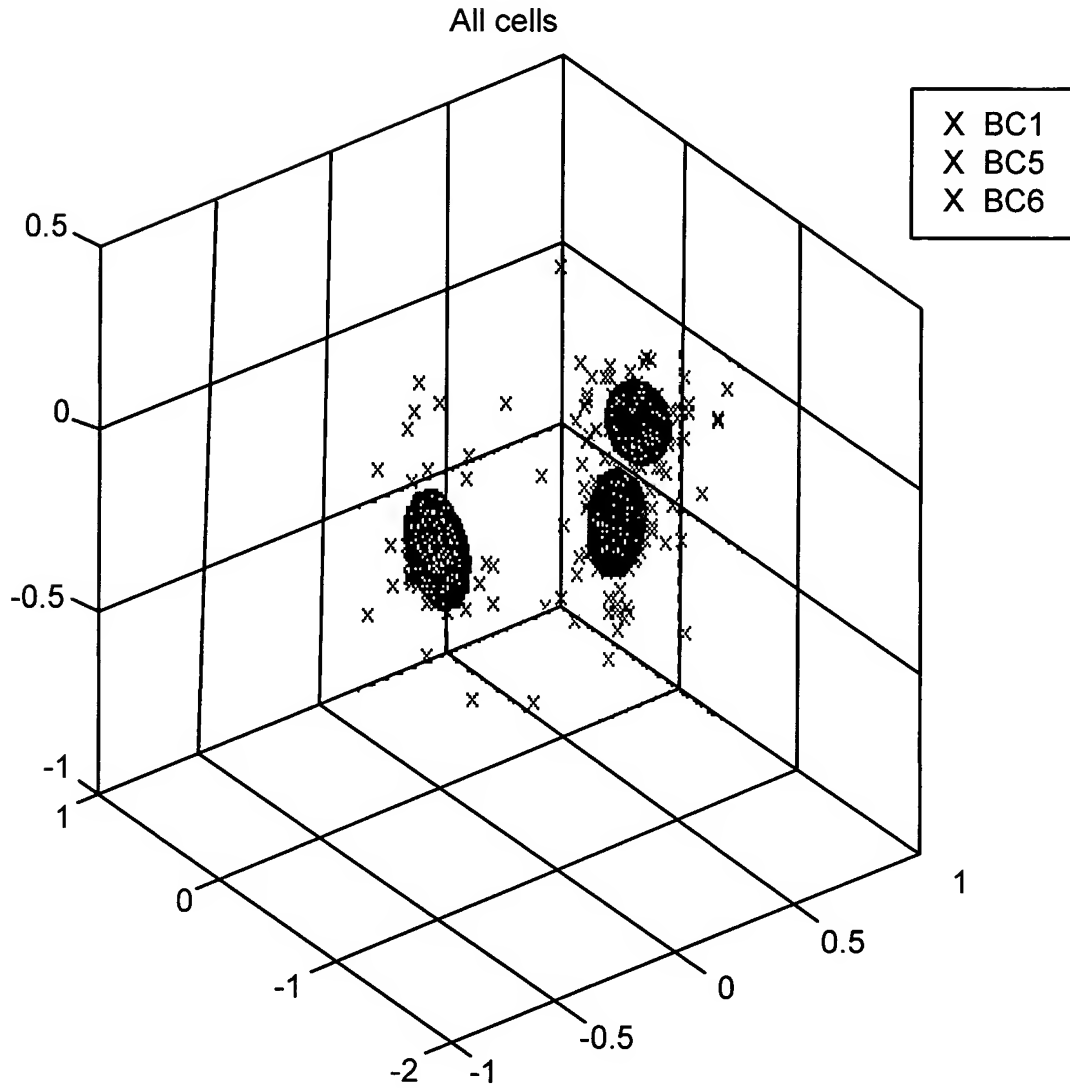


FIG. 62

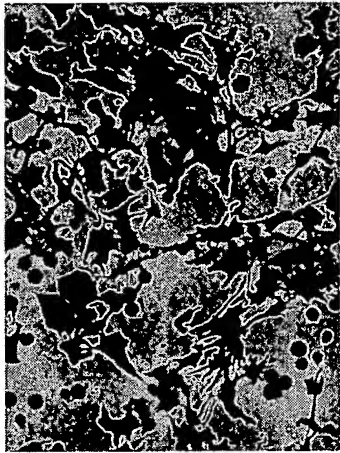


FIG. 63A

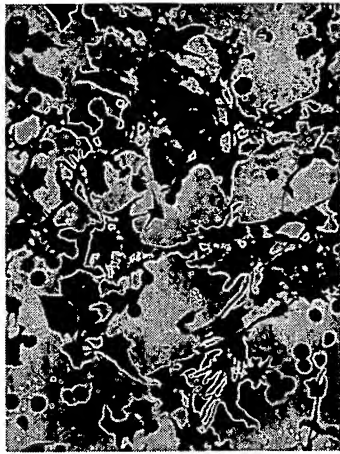


FIG. 63B

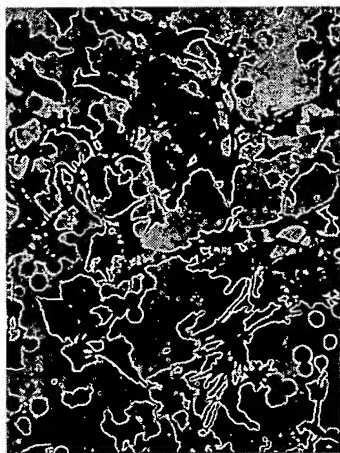


FIG. 63C

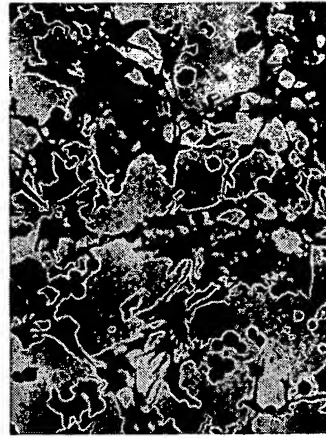


FIG. 63D

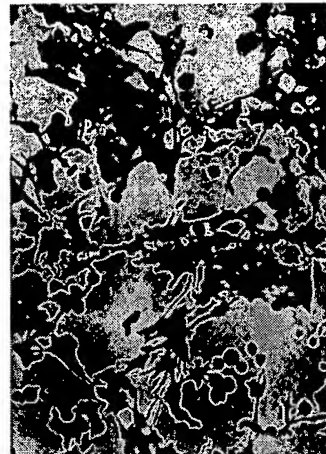


FIG. 63E

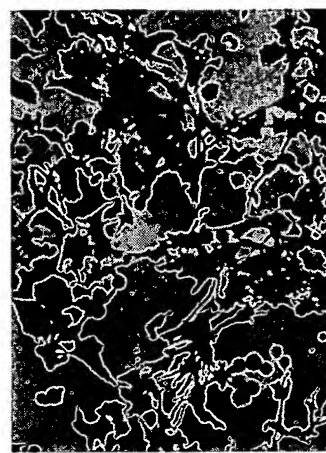


FIG. 63F

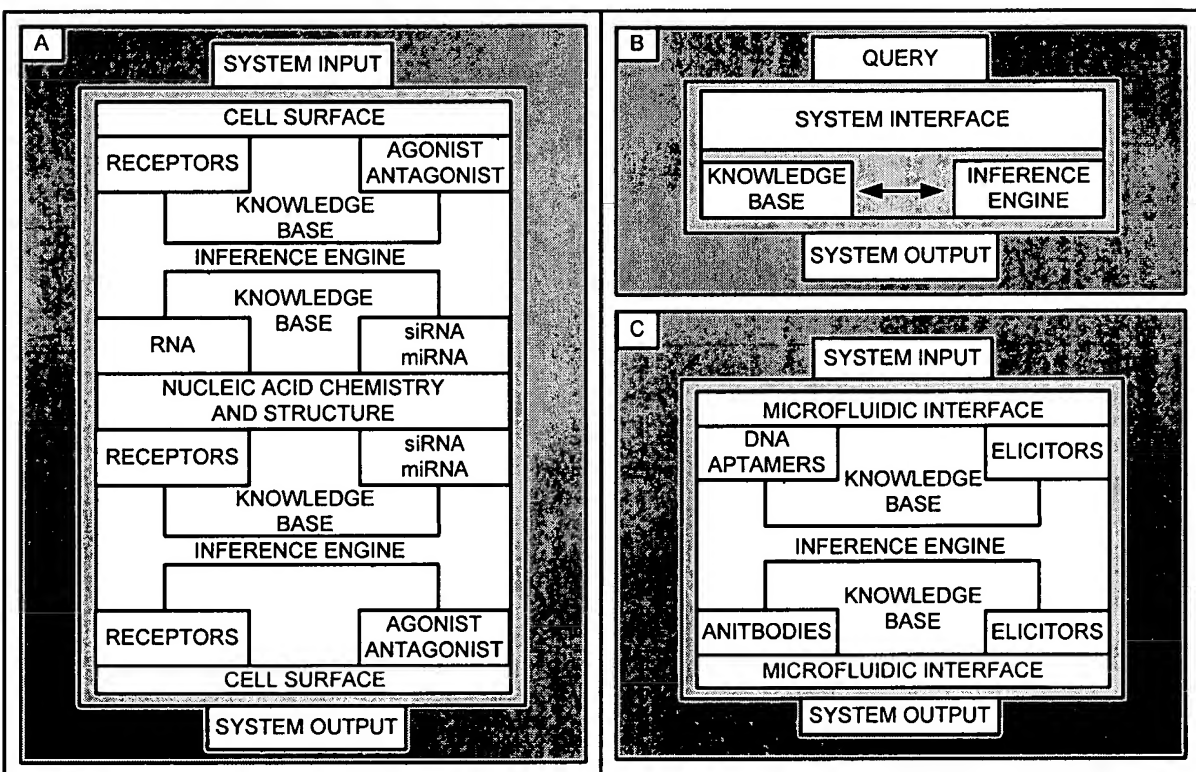


FIG. 64

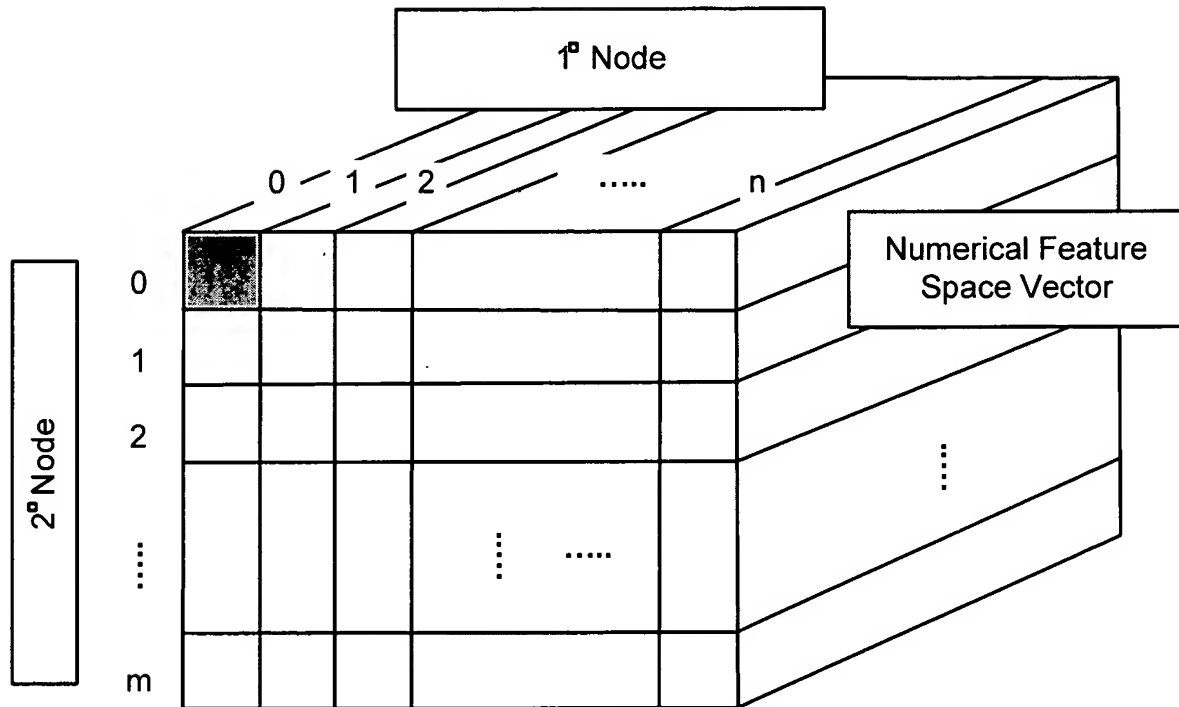


FIG. 65

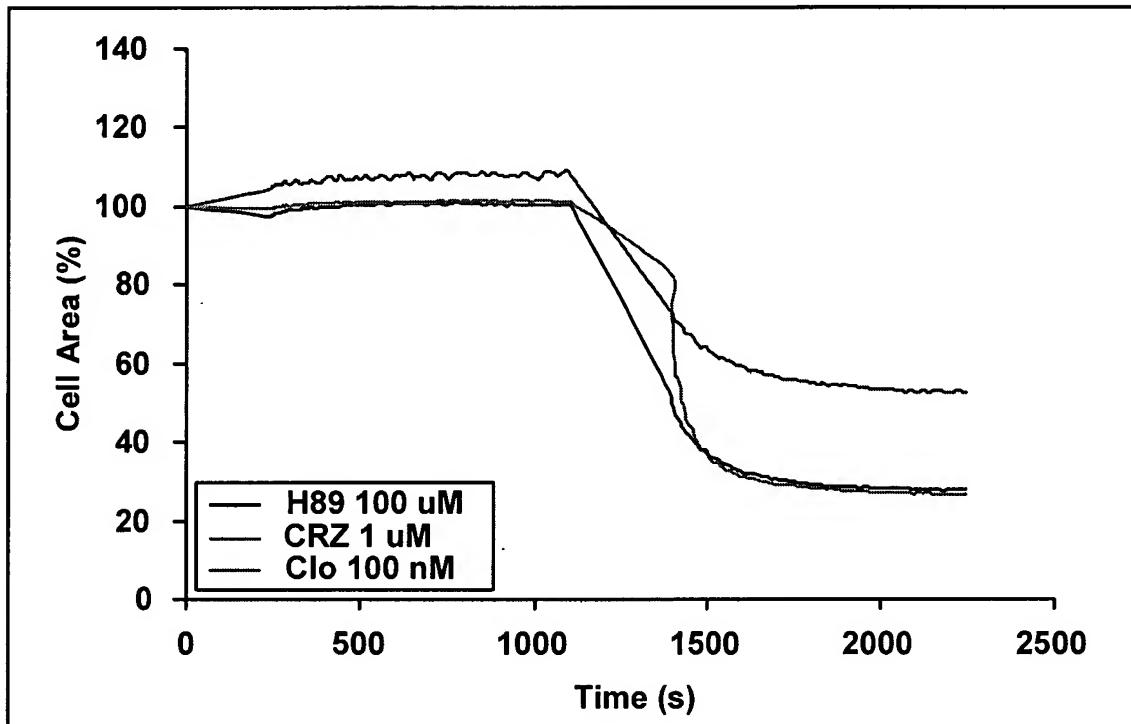


FIG. 66A

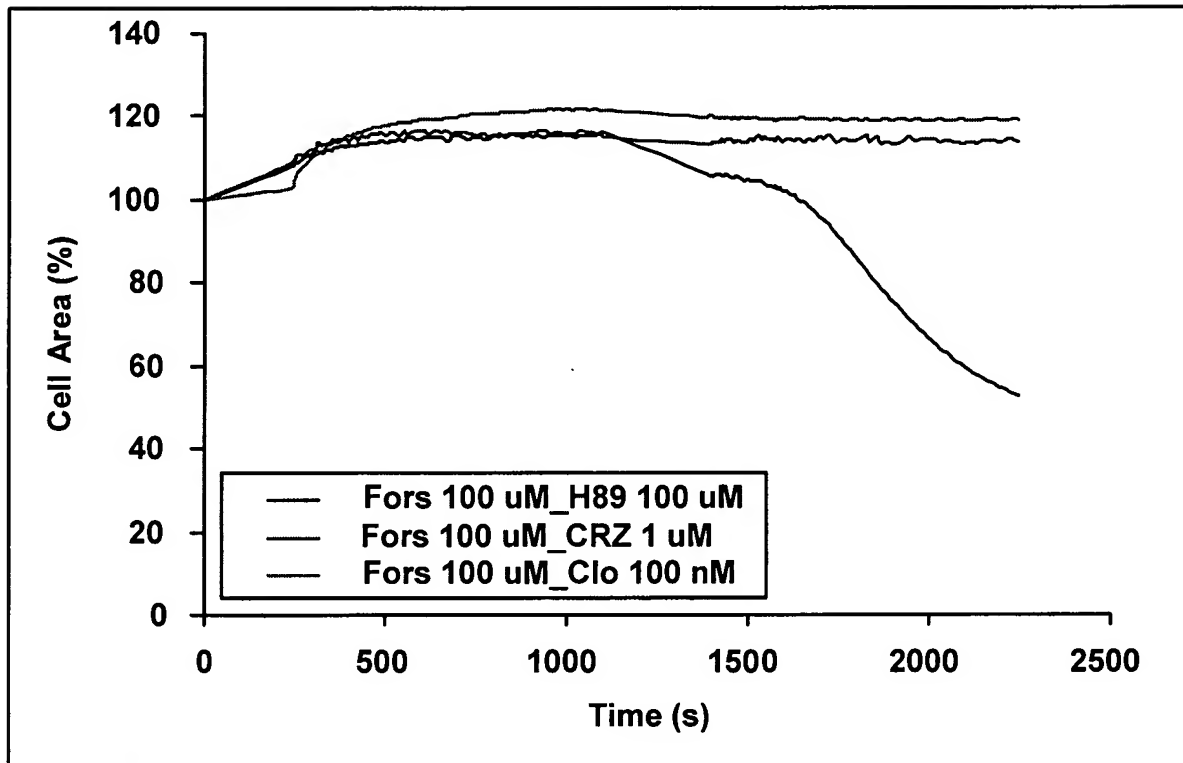


FIG. 66B

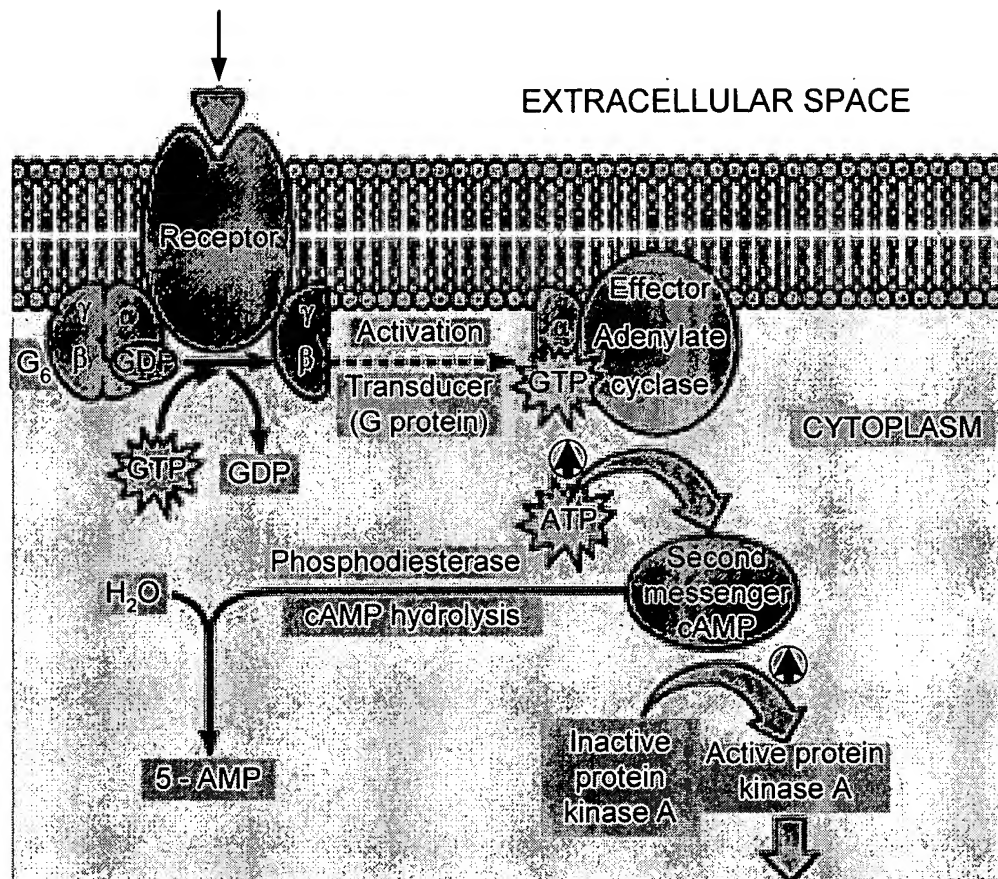


FIG. 66C

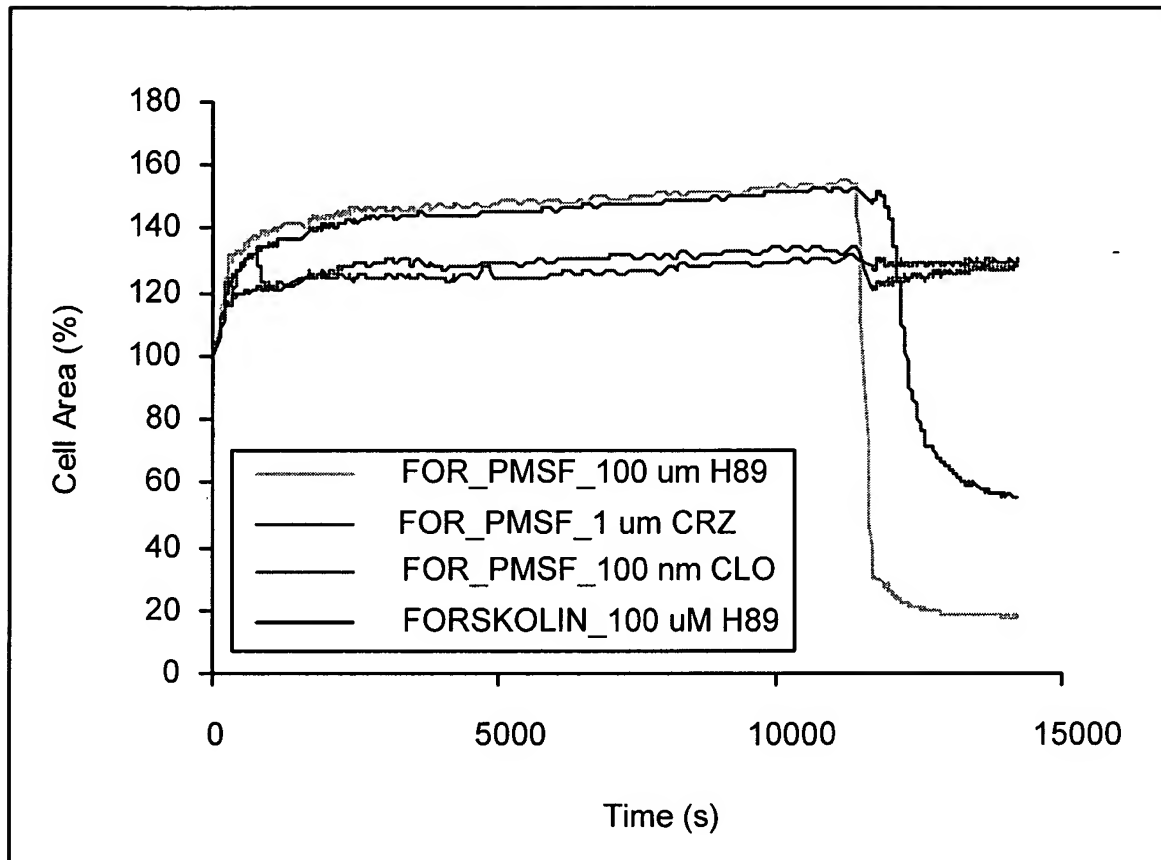


FIG. 66D

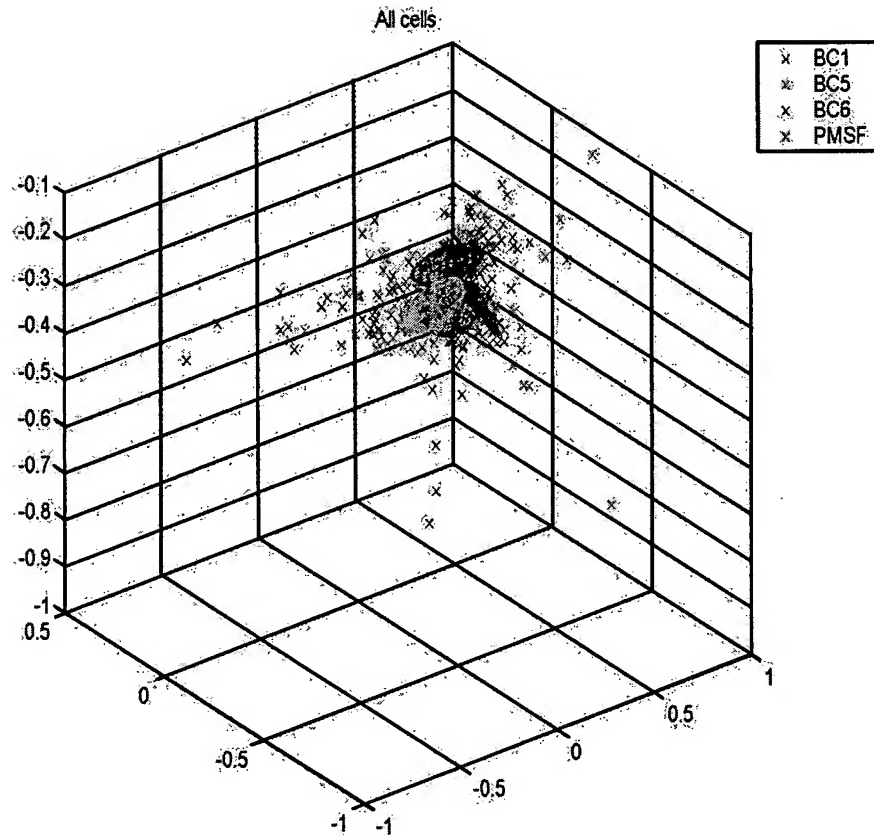


FIG. 67A

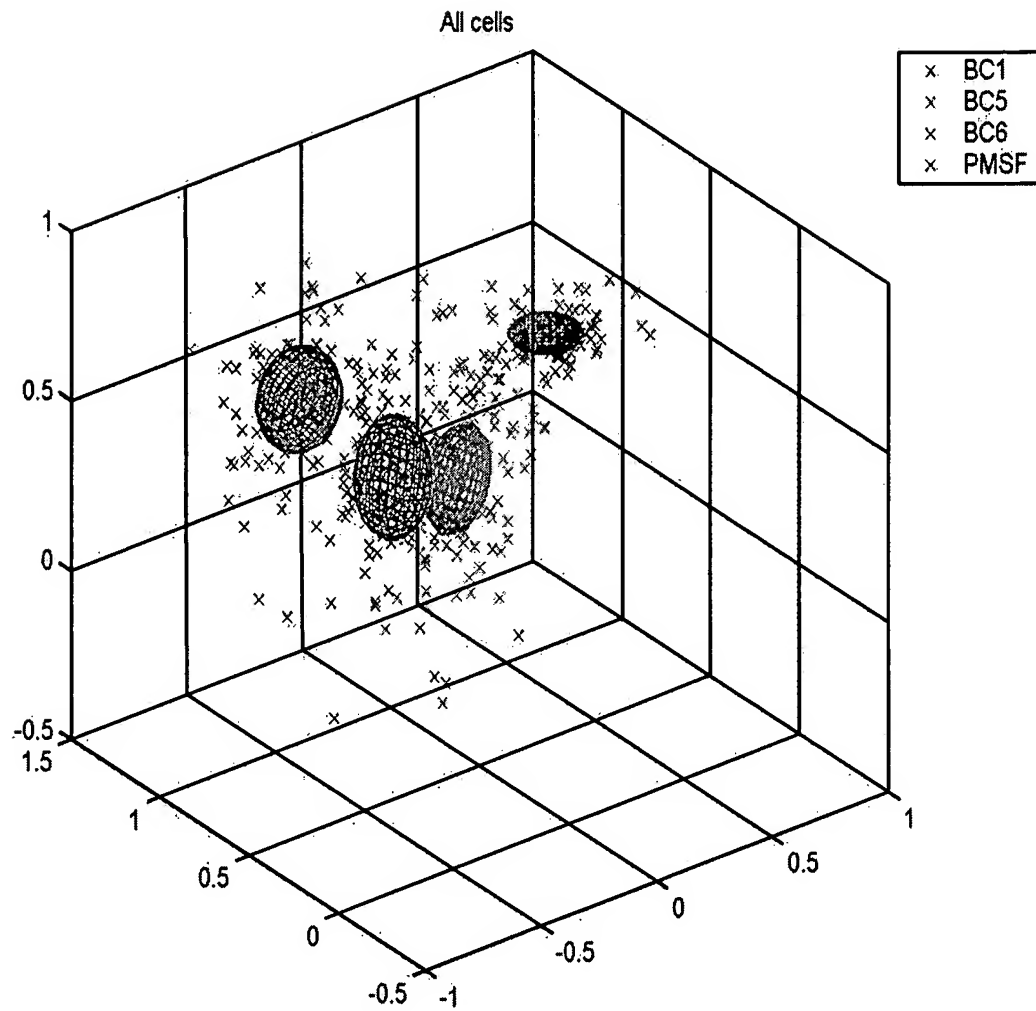


FIG. 67B

	Gemini III n	Gemini III Mean	Gemini III σ	
Fish A	9	4.1	2.4	
Fish B	9	5.8	3.7	
	MercuryHT n	MercuryHT Mean	MercuryHT σ	
Fish A	9	12	23	
Fish B	9	6.4	5.9	

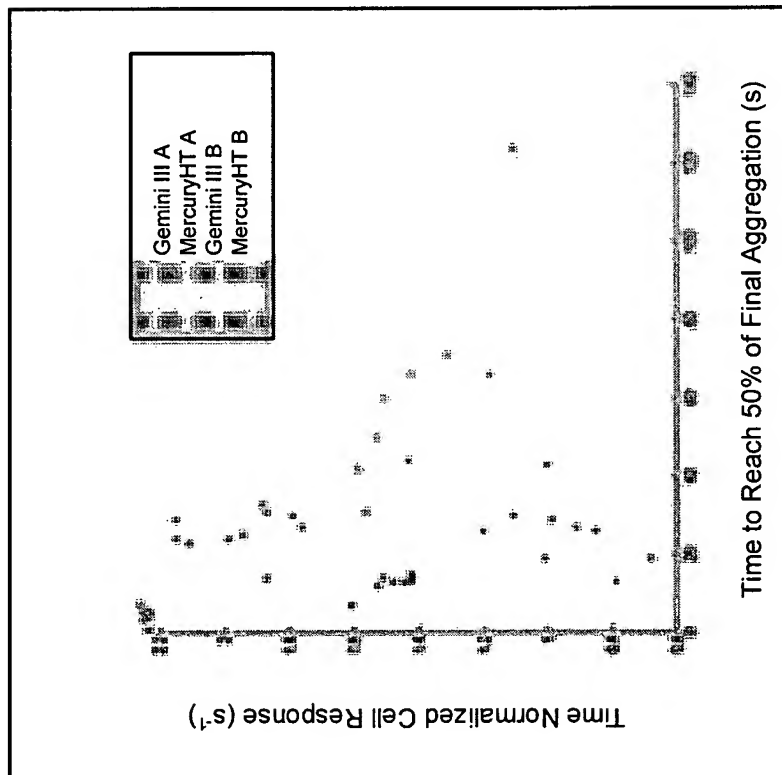


FIG. 68

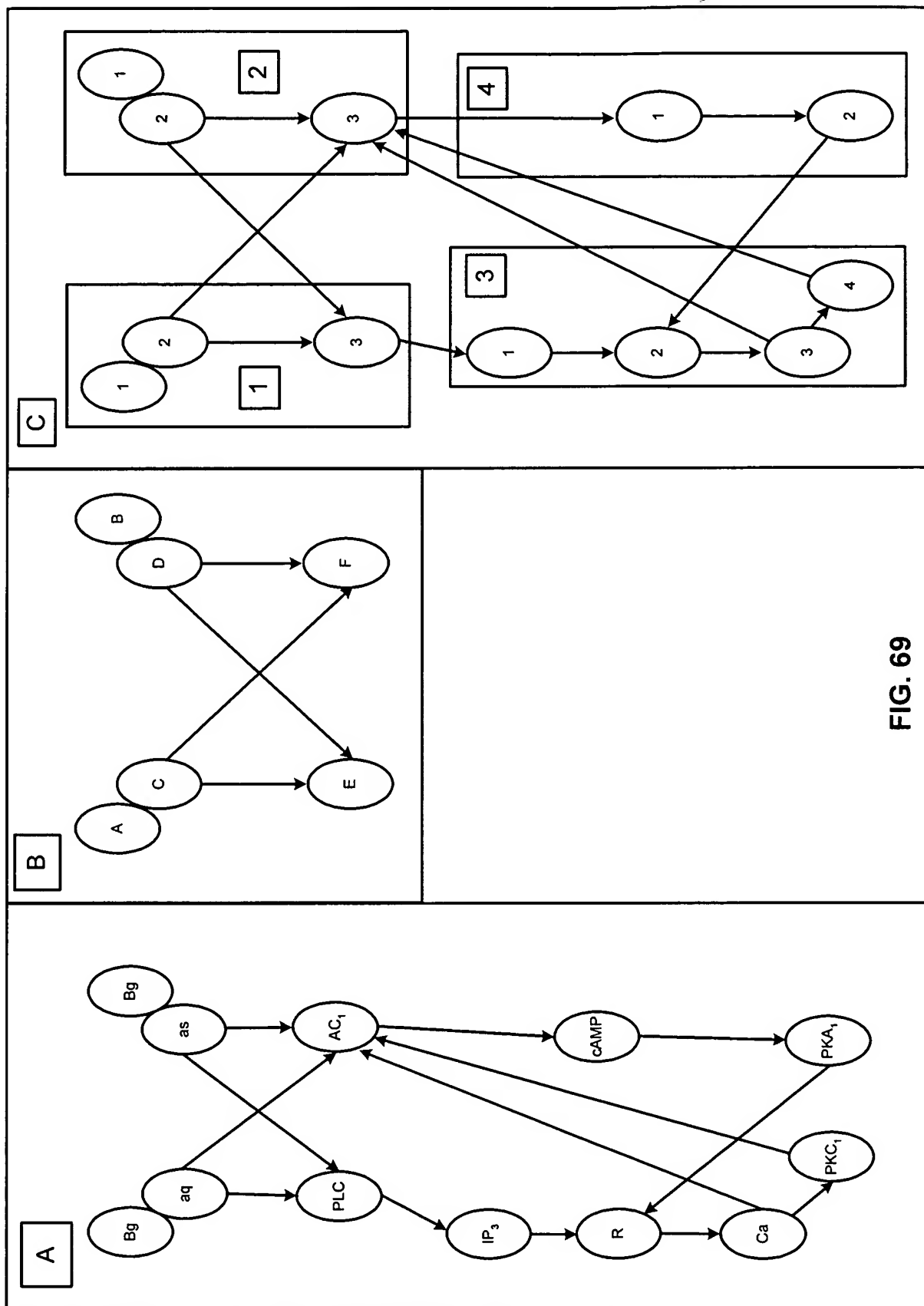


FIG. 69

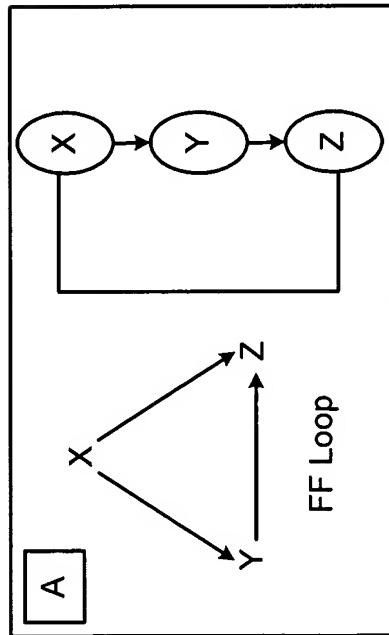


FIG. 70A

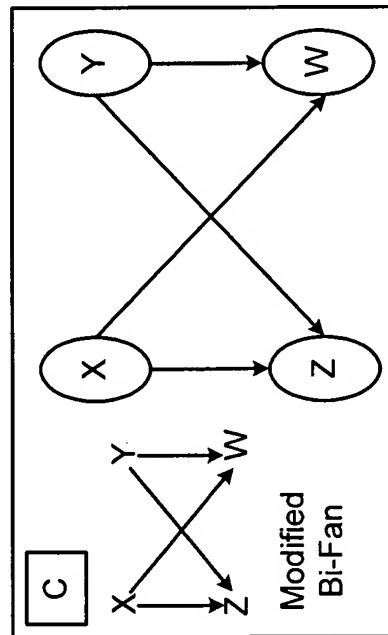


FIG. 70C

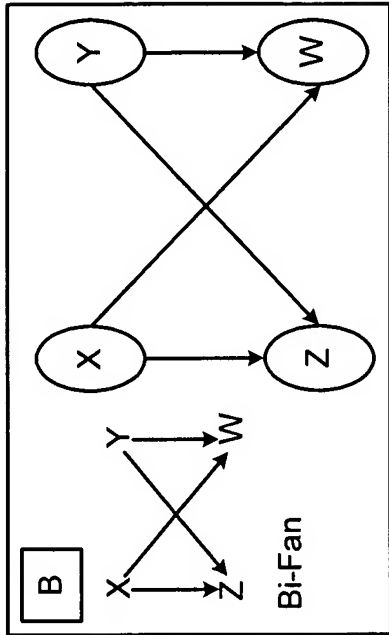


FIG. 70B

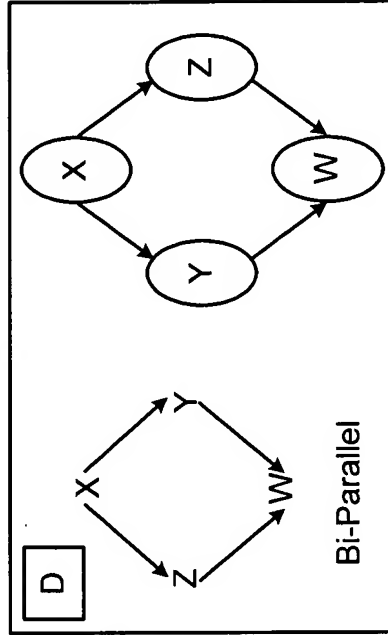


FIG. 70D

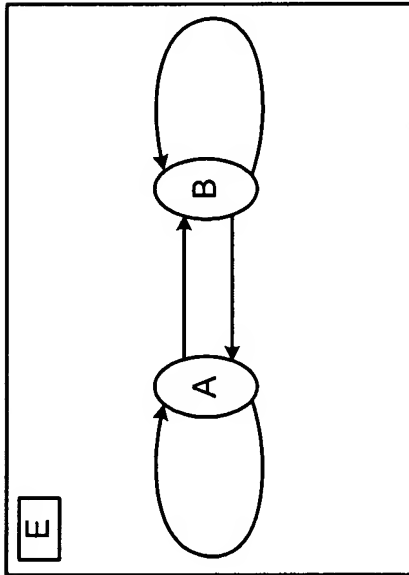


FIG. 70E

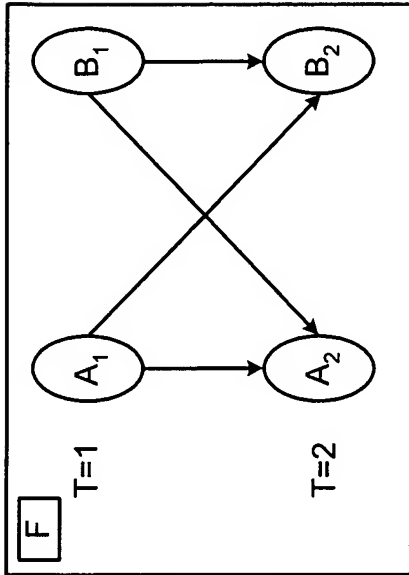


FIG. 70F

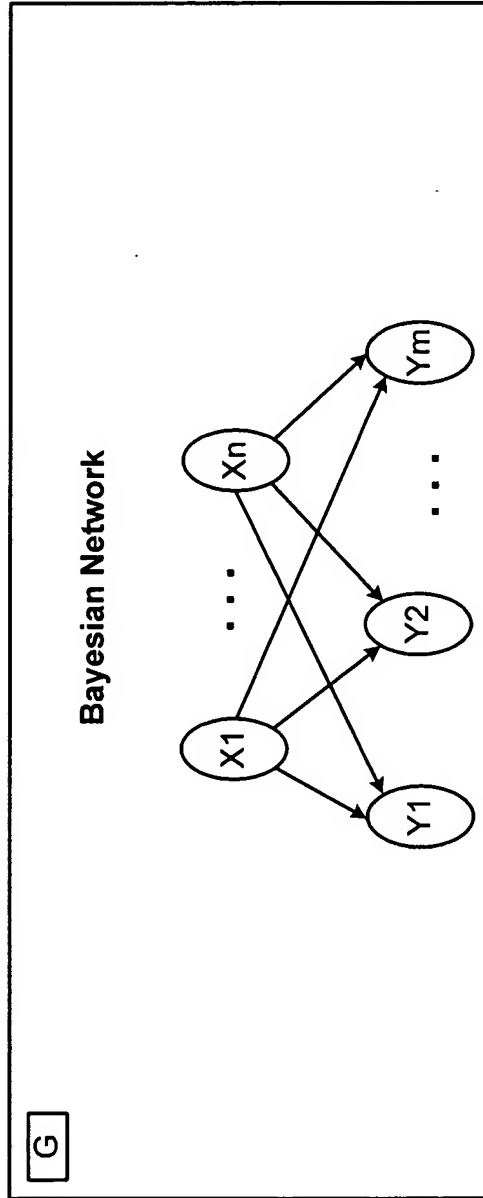
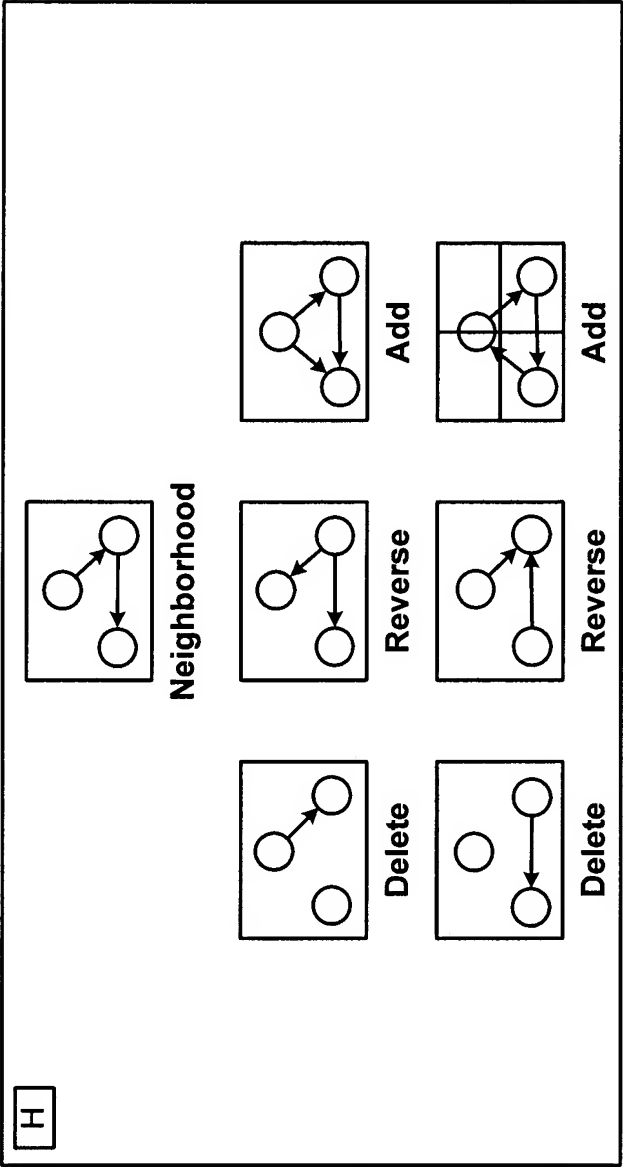


FIG. 70G



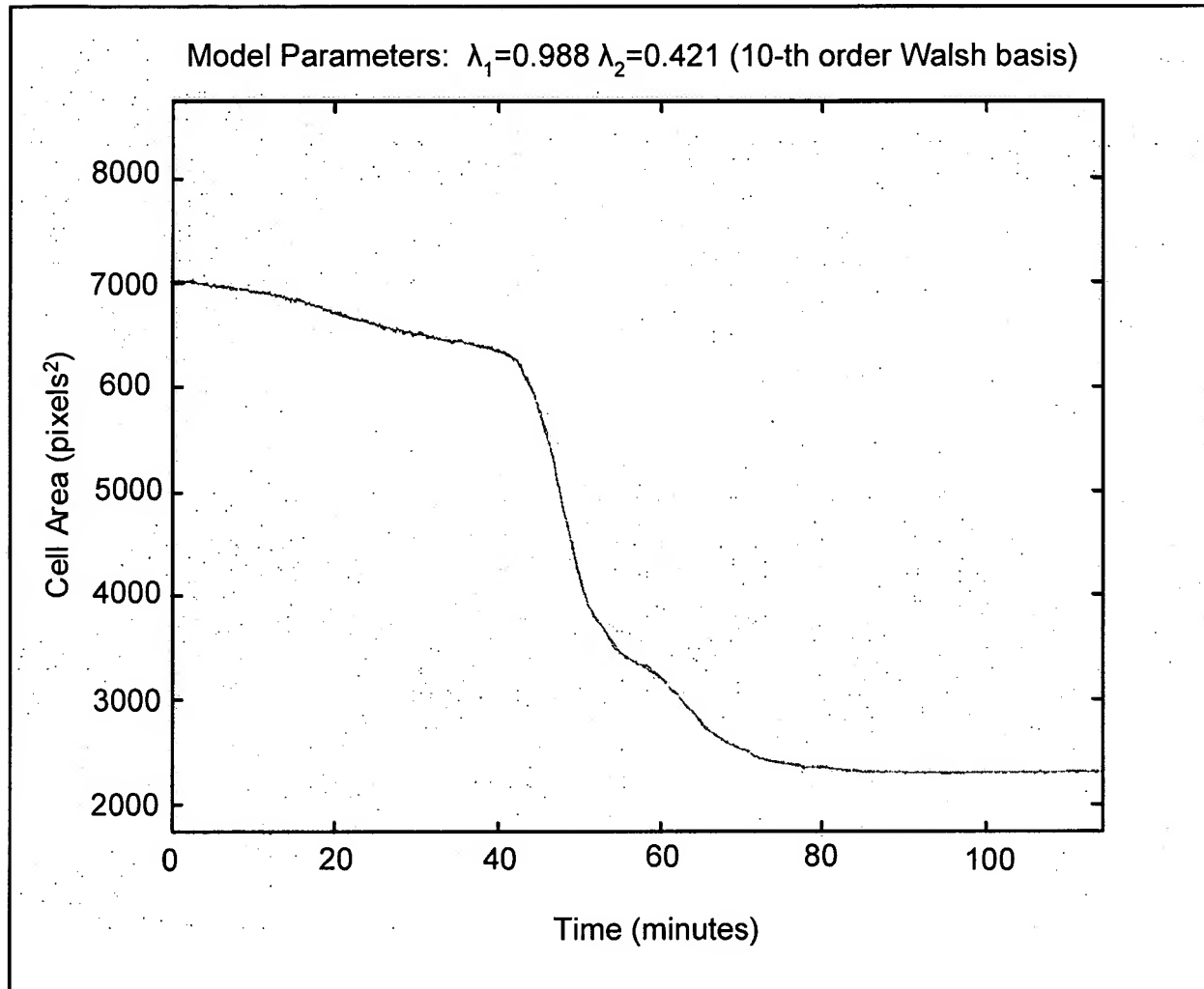


FIG. 71